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BALCONY

the JOURNAL
OF THE MEDICAL SOCIETY OF NEW JERSEY

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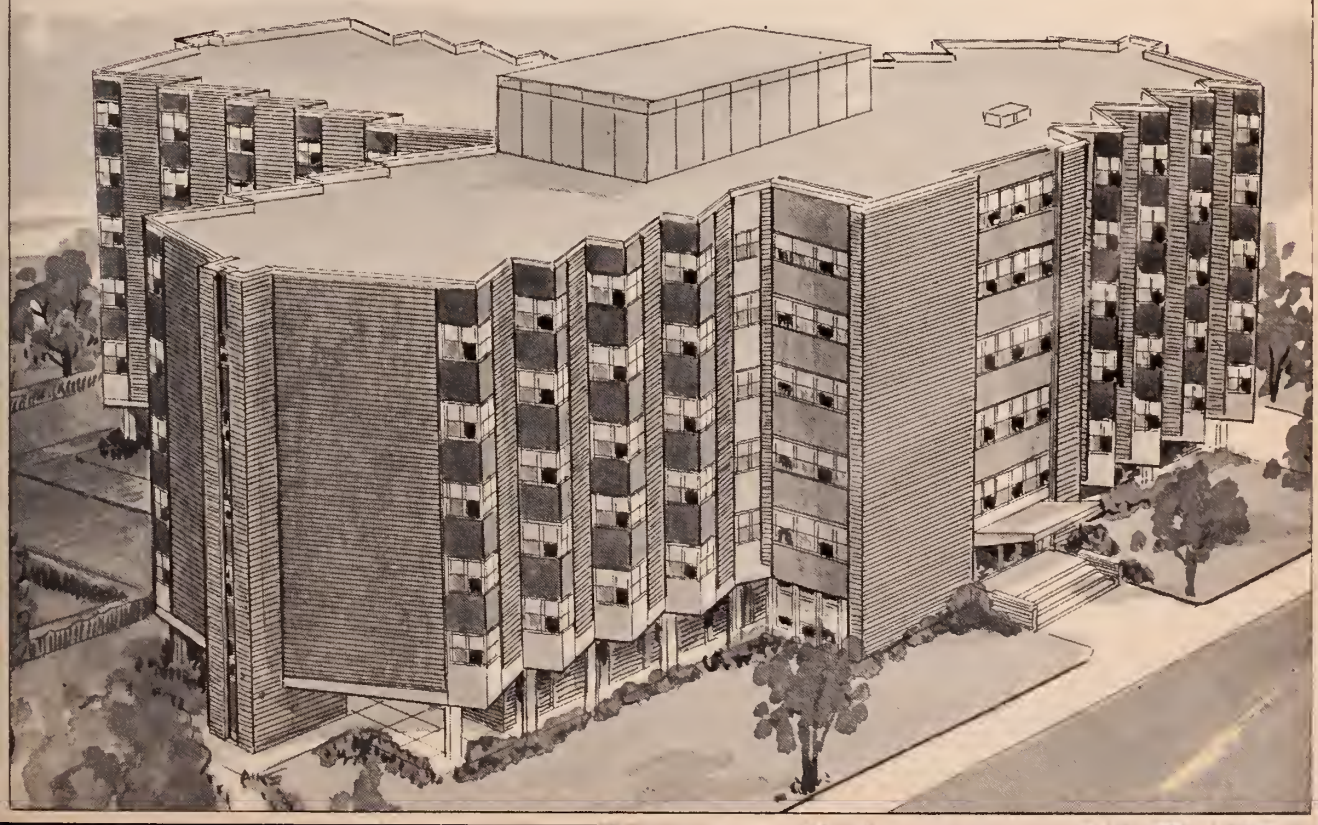
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Service benefits won't apply in most auto accident cases starting March 1

As a result of the new no-fault auto insurance law, Blue Shield will not cover treatment of conditions caused by motor vehicle accidents occurring on and after March 1, 1973, with a few exceptions. These will be spelled out in a forthcoming Newsletter to physicians and their office aides.

In the vast majority of such cases, physicians' services will be paid for by auto insurance carriers on a reasonable charges basis, and Blue Shield Participating Physicians will not be required to accept a Blue Shield basic contract fixed-fee payment as payment-in-full under certain income levels.

That situation had rightfully been disputed by Participating Physicians. It existed despite repeated efforts by the Plan to carry out the wishes of The Medical Society of New Jersey to eliminate service benefits in such cases.

Although Blue Shield will still be liable for treatment of conditions caused by motor vehicle accidents for CHAMPUS beneficiaries and about 17% of Plan members who are enrolled in National Accounts and the Federal Employee Program, CHAMPUS plus nearly half of the latter two categories are covered by Prevailing Fee; of the remainder covered under a basic fixed-fee schedule, the great majority are over the service benefits income limits. Hence the fixed-fee service benefits obligation of Participating Physicians will hold in only a very small percentage of auto accident cases.

Watch for details in your next Newsletter.

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Indications: Acute gouty arthritis, rheumatoid arthritis, rheumatoid spondylitis.

Contraindications: Children 14 years or less; senile pa- tients, history or symptoms of G I inflammation or ul- ceration including severe, recurrent or persistent dys- pepsia, history or presence of drug allergy; blood dyscrasias; renal, hepatic or cardiac dysfunction; hy- pertension; thyroid disease; systemic edema, stomatitis and salivary gland enlargement due to the drug, polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy

Warnings: Age, weight, dosage, duration of therapy, ex- istence of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions Care- fully instruct and observe the individual patient, espe- cially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug Use lowest effective dosage. Weigh initially unpredictable benefits against potential risk of severe, even fatal, re- actions The disease condition itself is unaltered by the drug Use with caution in first trimester of pregnancy and in nursing mothers Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and com- plete hematologic investigation Unexplained bleeding involving CNS, adrenals, and G I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents Carefully observe patients taking these agents Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid) Blurred vision can be a signifi- cant toxic symptom worthy of a complete ophthalmo- logical examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug

Precautions: The following should be accomplished at regular intervals. Careful detailed history for disease being treated and detection of earliest signs of adverse reactions; complete physical examination including check of patient's weight; complete weekly (especially for the aging) or an every two week blood check, perti- nent laboratory studies Caution patients about partic- ipating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been re- ported in patients with a history of short- and long-term therapy The majority of these patients were over forty Remember that arthritic-type pains can be the present- ing symptom of leukemia

Adverse Reactions: This is a potent drug; its misuse can lead to serious results. Review detailed information be- fore beginning therapy Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with per- foration and hemorrhage, ulceration and perforation of large bowel, occult G.I bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomit- ing and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G I bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow de- pression, sodium and chloride retention, water reten- tion and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (chole- stasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syn- drome, Lyell's syndrome (toxic necrotizing epidermol- ysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic re- actions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumat- ica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hy- perglycemia, thyroid hyperplasia, toxic goiter, associa- tion of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy; CNS reactions associated with over- dosage, including convulsions, euphoria, psychosis, de- pression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia, ulcerative stomatitis, salivary gland enlargement (8)98-146-070-G

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– George Sarton, from "The History of Medicine Versus the History of Art"

Are combination drug products useful in treatment involving concomitant use of two or more drugs?

Opinion

Results of a questionnaire to 7,000 physicians:

62.9%
Believe combination drug products are useful.

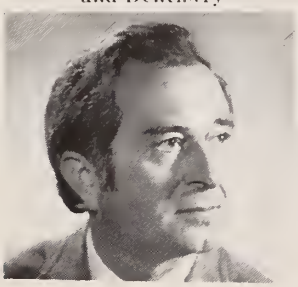
13.8%
Do not believe combination drug products are useful.

Are combination drug product useful in treatment involvin concomitant use of two or more drugs

Opinion & Dialogue

Doctor of Medicine

Louis Lasagna, M.D.
Professor and Chairman
Department of
Pharmacology & Toxicology
University of Rochester
School of Medicine
and Dentistry



Obviously, many drugs are given concomitantly. Whether it makes sense to combine medications in one preparation, be it capsule, tablet, or liquid, is a question that can be answered only by examining the advantages and disadvantages in the individual case.

Among the advantages is, first of all, convenience. The more medications that are taken concurrently and the more complicated the directions, the less likely the patient is to take medications accurately. From the standpoint of convenience and accuracy, and economy as well, you can make an important case for putting medications together in one preparation, as long as they are compatible.

By the same token, when you prescribe a properly tested and rational combination, you should have less worry about pharmaceutical or pharmacological compatibility – and about reasonable dosage ratios as well. Compatibility of the formulation should be demonstrated in the laboratory and clinic before the product is available for prescription—which is more than can usually be said for the physician's own spontaneous creations. And, the dosage ratios employed in rational precompounded combinations are designed to meet the needs of substantial numbers of "typical" patients.

There is no doubt that many "atypical" patients are to be found, and for them the prefabricated combination must be rejected. But that hardly argues for eliminating rational combinations from the market. Think, for example, of the problems that would arise if the components of widely accepted combinations, like the oral contraceptives and the diuretic-antihypertensives, always had to be prescribed, purchased and ingested separately.

One disadvantage that comes to mind is some doctors' unawareness of the ingredients a given combination contains. For example, a doctor might know that a patient is allergic to aspirin but forget that a certain analgesic mixture, which he knows only hy its trade name, contains aspirin. His prescription, then, causes considerable discomfort, to say the least. This problem is a function of physician education, rather than of combination therapy as such. Improving doctors' knowledge about all medicaments they prescribe is a problem that deserves tackling on its own.

Another accusation leveled at combination drugs is that they encourage sloppiness of diagnosis and treatment. In many cases, however, a combination may prove to be the most effective choice. A good example of the usefulness of combinations appears in a recent article in the *Journal of Chronic Diseases* on the efficacy and side effects of an antihypertensive containing three ingredients, in which the track records of the combination drug and the individual ingredients were compared. Interestingly enough, whether the drugs were given individually or together, incidence and severity of side effects were the same. But blood pressure control was invariably better when the drugs were taken in one combination tablet than when they were taken separately (in "titratable" dosage) or in two or three different tablets.

Deciding which combinations constitute rational therapy obviously leads to a discussion of who is to determine which should be used and which should not. Realistically, I think combinations should be evaluated somewhat differently if they are old and established or new and untried.

In today's regulatory atmosphere, there is no possibility of a new combination being put on the market without a substantial amount of acceptable evidence in the form of controlled trials that show it to he safe and efficacious. On the other hand, I believe a different set of standards should apply to combination preparations that have been around for a long time. In other words, physician acceptance over a long period should be given some weight as evidence of the efficacy and safety of these drugs.

The FDA, however, does not seem to share this attitude. It often requires, for these older products, controlled trials that will monopolize the time of already overtired investigators and cost a great deal of money. I wish we could agree on a "grandfather clause" approach to preparations that have been in use for a number of years and that have an apparent satisfactory track record.

For example, I think some of the antibiotic combinations that were taken off the market by the FDA performed quite well. I am thinking particularly of penicillin - streptomycin combinations that patients—especially surgical patients—were given in one injection. This made for less discomfort for the patient, less demand on nurses' time, and fewer opportunities for dosage errors. To take such a preparation off the market doesn't seem to be good medicine, unless actual usage showed a great deal of harm from the injection (rather than the proper use) of the combination.

The point that should be emphasized is that there are both rational and irrational combinations. The real question is, who should determine which is which? Obviously, the FDA must play a major role in making this determination. In fact, I don't think it can avoid taking the ultimate responsibility, but it should enlist the help of outside physicians and experts in assessing the evidence and in making the ultimate decision.

Maker of Medicine

W. Clarke Wescoe, M.D.
President
Winthrop Laboratories



If two medications are used effectively to treat a certain condition, and it is known that they are compatible, it clearly is useful and convenient to provide them in one dosage form. It would make no sense, in fact it would be pedantic, to insist they always be prescribed separately. To avoid the appearance of pedantry, the "expert" decries the combination because it is a fixed dosage form. When the "expert" invokes the concept of fixed dosage form he obscures the fact that single-ingredient pharmaceutical preparations are also fixed dosage forms. By a singular semantic exercise he implies a pejorative meaning to the term "fixed dose" only when he uses it with respect to combinations. What is ignored is the simple fact that only in the rarest of circumstances does any physician attempt to titrate an exact therapeutic response in his patient. It is quite possible that some aches and pains will respond to 500 mg. of aspirin yet that fact does not militate against the *usual* dose being 650 mg.

The other semantic ploy often called into play is to describe a combination product as rational or irrational.

Take antibiotic mixtures, the source of much of the criticism generated against combinations generally. Obviously, no one should be exposed willy-nilly to the potential side effects of two or three antibiotics when only one is needed. At the same time there are cases where it is prudent to prescribe more than one. The clinician is the judge in these circumstances, as he should be.

There is no clear definition of the word rational. Most persons, I suppose, would find it synonymous with reasonable, but in many circumstances it may best be defined as the opinion of those in power at the moment.

Other factors govern combination therapy, not the least of which has been its broad use by practicing physicians anxious to achieve convenience in prescribing, to reduce medication error, and to save money for their patients. Combinations clearly have met the test on all three counts.

I have been impressed by studies showing that the rate of error climbs markedly with the number of medications to be taken, even with sophisticated patients. When medically justified, therefore, this factor alone supports the logic of combination therapy.

The cost argument for combinations appears to be irrefutable. In 1971, R. A. Gosselin studied the 71 combination products (excluding oral contraceptives) among the 200 most prescribed drugs. The study found that if all 71 products were discontinued, and if each ingredient in these combinations were prescribed separately, the price of medicines to patients would jump by $443.2 million on a national basis! At a time when the cost of medical care is under so much fire, it would be nonsensical to boost costs without clearly irrefutable medical reasons.

The part played by government on this question, of course, is fundamental. The FDA should play a role in determining which combinations are reasonable. That role, as defined by law and regulation, is to ensure that any medication on the market is safe and effective in line with its label claims. Certainly combinations are entitled to as much consideration as single entities—neither more nor less. So long as the addition of one drug to another does not make either less safe, or less effective, so long as they are compatible in a formulation, we have a reasonable product. It makes no sense to recommend the use of two products for certain conditions and to deny their being combined in a single form. An unhappy side effect of the problem concerns the efficacy panel discussions of many products submitted for review. The term "effective, but" has been freely interpreted to mean "ineffective" in toto, regardless of the merit of the individual drugs. This interpretation has placed numerous useful combination products in needless jeopardy.

In reading the actual reports of the review panels, it seems clear that some of the ratings were based less on scientific research and clinical observation than on the "informed" opinions of the panelists. These "informed" opinions were accepted at face value, while the "informed" opinions of others who had used the products were rejected. All of this put combination products into a sort of scientific never-never land.

It should be kept in mind by all, government as well as others involved in our health care system, that advances in therapy are seldom made in leaps and bounds but rather by small painstaking steps—and that some of these steps have resulted from research in combination drugs as well as with single entities. Given the near-infinite biologic variation in patient response, this is hardly surprising to clinicians. It should not be to regulatory agencies either.

In the end, the practicing physician is in the best position to decide if a particular combination makes sense. Such a decision should not be made exclusively by those whose responsibility for continuing clinical care is limited. Clinicians are the best judges of efficacy because the ultimate proof of any product's effectiveness is acceptance by physicians who have observed its actions in patients over time. The corollary statement may be made about over-the-counter medicines, which would not long survive if they failed to afford the relief the user anticipates. That the antihistamine in a "cold" remedy may not *always* be necessary is no reason to proscribe the combination generally.

Opinion & Dialogue

What is your opinion, doctor?
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EDITORIALS

Minority Medical Student Recruitment

To help the "minority" student get his fair chance at a medical education, it must be recognized that he may have a childhood or adolescent background with a serious deprivation of books, of magazines, of intellectually stimulating opportunities, and of academic impoverishment. To give such young people less limited opportunities for a career in medicine, affirmative efforts must be taken. In this connection, it is good to report that a federal grant of $88,000 has been made available to Rutgers' Medical School to support both a summer orientation program and individual tutorial help for minority students throughout the year. The 1972 summer orientation program began in July and fourteen minority students, most of whom are New Jersey residents, were enrolled. Praise is due the school's faculty and administration for its commitment to equal educational opportunity for all groups.

The seven objectives of the program are (1) summer-long introduction to first-year medicine; (2) individual and group tutorial instruction throughout the year in difficult subject areas; (3) analysis and counseling of individual students' progress throughout the year; (4) minicourses, programed text materials, and computer-assisted instruction during the summer; (5) makeup courses for students who failed a subject during the previous academic year; (6) intensive recruitment programs to attract minority students to the College of Medicine and Dentistry of New Jersey (Rutgers Medical School); and (7) ongoing research and evaluation regarding progress of the program to develop further understanding of student needs in general as well as those of minority background.

The Robert Wood Johnson Foundation has awarded an additional $55,000 to help the local medical school increase its minority representation.

"Although participation in the program does not guarantee that an undergraduate student will be admitted to one of the schools, the aim is to increase the likelihood that a minority candidate when admitted will be prepared to successfully complete the program of instruction," said Charles A. Vevier, Ph.D., Executive Vice-President of the College. He further explained that "the faculties of the individual schools devised the plan in order to heighten the recruitment of minority students who have a potential for successful participation in these educational programs."

During the summer of 1972 participants received both practical and classroom instruction. Several instructors were added to the faculty for the special program which included formal premedical and predental instruction and training in the proper approach to medical and dental school study.

Our New Jersey medical and dental schools have thus been dynamic pioneers in the development of these programs which will help bring the American dream closer to all Americans.

The Language of Labels

The advance of education has equipped many patients with a lexicon of labels. A short, single label like "cancer" evokes a flood of emotional responses. To give the patient a "drug" to help him sleep, produces the image of a narcotic or habituating "drug." And the advertisers have not helped with their dissemination of such concepts as "tired blood" or "iron-deficiency anemia."

The patient changes when he moves from the language of the symptom (my head hurts, or my feet swell) to the language of the medical dictionary. There is a semantic difference between the verbalization of a "heart attack" (with its implication of being the victim of an "attack") and such a concept as "cardiac

embarrassment" or even "fluid in the lungs." The meaningless phrase "nervous breakdown" has some relatively benign implications contrasted with "psychotic episode" or "insanity." A word like "bursitis" seems less threatening than "arthritis," and there is something to be said semantically for such old-fashioned concepts as "rheumatism." The patient's persistent idea that there is something unreal or even imaginary about a "functional" or "nervous" symptom is another example. We become so accustomed to these labels in our daily work that we may forget that labeling often leads to iatrogenic disability.

The Self-Sabotaging Patient

While we doctors are busy defending our image, we sometimes forget that patients can be uncooperative to the point of sabotaging their own health. One thinks of the obvious example of the patient who insists on smoking, drinking, or overeating when his doctor tells him how hazardous these activities are.

A Salt Lake City physician* recently commented, "In this era of potent and dangerous medications, patient reliability in taking drugs becomes a primary consideration. Most physicians are aware that some patients fail to take prescribed medicines, but few realize the extent of the problem."

One tuberculosis study started with clinic and pharmacy records at the University Hospitals of Cleveland, which indicated that 50 persons in the outpatient department were supposed to be taking the drugs isoniazid and/or aminosalicylic acid. It soon became apparent that large numbers of patients weren't following directions when urine tests failed to reveal any trace of the drugs. "Detection of the patient who is not taking his medicine is difficult," the report said. "Simply asking him seems unsatisfactory since patients tend to claim that they have taken medicine when direct evidence indicates that they have not."

An earlier study indicated that 83 per cent of families who insisted that they *had* given a full ten-day course of penicillin to their children, had in fact stopped well before the end of the ten-day period. There are even cases of a reverse uncooperativeness: patients who keep taking medication after the doctor insists that they stop. All this, of course, does not justify neglect or indifference by the physician. Still, it seems only fair to say something for the defense in the current open season on doctors.

Emotional Impact of Pollution

The toxic physical impact of polluted air, water, and food is obvious. More subtle is its emotional effect. What happens to the emotional development of children who see squalor in the streets, garbage in their play areas, rats in their kitchens? If this becomes the normal way of life for some children, one cannot be surprised at distressing emotional results. There are, furthermore, toxic chemicals which have effects on the intellect and emotions: mercury, lead, and carbon monoxide, to name just three. The constant hammering of noise (*hok tchynik*) surely has a deleterious outcome on one's equanimity. Environmental degradation can certainly have an emotional consequence. We don't know what the psychologic impact is of repeated absorption of insecticides, but it can't be good. Modern transportation methods not only foul the air with pollutants, but also reduce human exercise. The cadence of life today makes for anxiety and apprehension. Human beings may, indeed, constitute pollutants to each other, so that overcrowding itself leads to an unhappy emotional reaction. The reduction of the vitamin content of refined food is likely to have an impact on the eater's emotional status. No man is an island, and smells, noises, and ugly sights are bound to affect one's psyche.

* Robert K. Maddock, Jr., M.D., University of Utah Medical Center, Salt Lake City.

ORIGINAL ARTICLES

Relations between rhabdomyolysis and previous sudden exertion are here explored.

Rhabdomyolysis

Two Case Reports and a Review

J. A. Rosenkrantz, M.D., *et al.
Newark

Rhabdomyolysis and myoglobinuria may develop spontaneously or be associated with stress, metabolic changes, and muscular disorders.[1-8] Myoglobinuria is associated with marked exertion,[9-12] arterial occlusions,[13, 13a] anterior tibial syndrome,[14] crush injuries,[15-19] beatings,[20] electric shock,[21] burns,[2] alcohol and drug toxicity,[3, 8, 22-36, 36a] heroin addiction,[37] administration of succinylcholine with halothone to children,[38-41] restricted carbohydrate diet,[3, 4, 42] McArdle's syndrome,[43, 44] polymyositis or dermatomyositis,[45,48] muscular dystrophy,[3, 49-51] myotonia congenita,[52] Haff disease,[53-56] convulsive seizures,[3, 5, 52, 57, 58] idiopathy,[8, 59-71] and may occur in families. Myoglobin in the urine has been reported also in patients with myocardial infarction and when identified is specific for the diagnosis.[74]

Two patients with a prior diagnosis of rhabdomyolysis were followed in the Newark Outpatient Clinic of the Veterans Administration Hospital, East Orange.

Case One

While in service, an eighteen-year old male engaged in vigorous exercise in a physical fitness program. He complained of soreness in his arms and shoulders which persisted for five days. At this time his urine turned dark brown and he reported for sick-call. It was then noted that his biceps and triceps were swollen. He had albumin and granular casts in his urine which was positive for occult blood. He was hospitalized at a naval hospital. He then explained that four years prior he had performed heavy weight-lifting exercises without untoward effects. There was no family history of muscle dysfunction or other muscular disorders. Physical examination was within normal limits except for swollen tender triceps, biceps, and deltoids.

Laboratory studies revealed an SGOT of 260, LDH 61, and CPK 1925 mU/ml. On three succeeding days his CPK was over 4000 and SGOT 2970, 1450, and 1500 mU/ml. Urine was positive for occult blood, had a specific gravity of 1.015 and scattered hyaline casts. All other laboratory data (total bilirubin, alkaline phosphatase, hematocrit, hemoglobin, reticulocytes, creatinine, uric acid, urea nitrogen, electrolytes, and white cell count) were all normal. Muscle biopsy (Figure 1) performed four days after admission showed histologic evidence of moderate rhabdomyolysis.

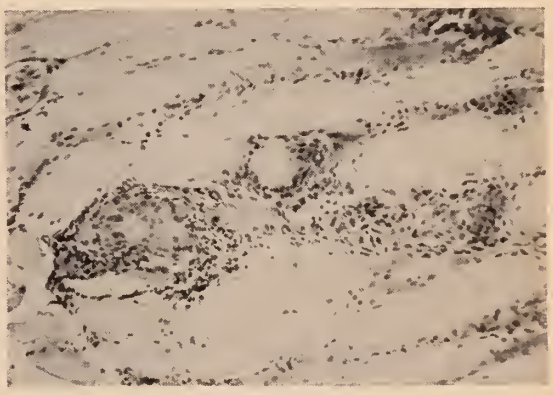


Figure 1—Section of striated muscle showing moderate rhabdomyolysis with loss of striations and eosinophilic smudging of myofibrils, perimysial nuclear hyperplasia, internal nuclei and mild infiltration with polymorphonuclear cells and histiocytes.

Muscle tenderness decreased over the next eight days. Three weeks later CPK and SGOT returned to normal limits. At this time there was no obvious swelling or tenderness in his affected muscle groups. Detailed muscle tests were performed after 24 push-ups, 8 pull-ups and 9 chin-ups. His bicepts tested normal, while the deltoids were rated between 70 and 75 per cent of normal. At discharge the patient was without complaint, all signs and symptoms having subsided spontaneously.

*From the Outpatient Clinic, Veterans Administration Hospital, East Orange, New Jersey (at Newark); where Dr. Rosenkrantz is Chief of the Outpatient Section. Coauthors are Otto Brandman, M.D., Chief of Medicine; Robert Levinson, M.D., Cardiologist; and George M. Cohn, M.D., Internist.

Ten months following initial onset of his ailment he was examined in the Outpatient Section of the VA Hospital; he was symptom free. Electromyographic studies of both biceps and deltoids were entirely normal. All laboratory studies including CPK, LDH, SGOT, alkaline phosphatase, chloride, CO_2, potassium, sodium, urea nitrogen, glucose, total protein, albumin, globulin, calcium, inorganic phosphorus, cholesterol, creatinine, and uric acid were normal.

Case Two

A twenty-four year old male marine, with only ten days of active duty service, was admitted to a naval hospital with a history that he began doing 40 to 60 push-ups a day on commencing his training and four days later developed a dark urine. The patient complained of muscle tenderness and swelling of biceps and triceps bilaterally two days before admission. No other muscle groups were affected. There was no past medical history of any primary muscle disorder in his family. Physical examination was within normal limits except for swollen, tender triceps and biceps muscles bilaterally. There were no other abnormal muscle findings in any of the other muscle groups.

The following laboratory examinations were reported: Urine had 150 mg/ml albumin, was positive for occult blood, had many coarse granular casts but no red blood cells were found. CPK done on the three succeeding days after admission revealed determinations of 5500, 4000, and 1263 mU/ml respectively. On admission the patient had an SGOT of 1400, GPT 360, and LDH of 340. He had a normal BUN, uric acid, creatinine, and two hour post-prandial blood sugar. His blood white count was 3300 with 50 per cent polys and 42 per cent lymphocytes. Intermediate PPD skin test was negative. Mono spot test was negative. Sedimentation rate was 5 mm per hour. Platelet count was 435,000. Two weeks after admission the patient had a normal GGPT and LAP level for these liver enzymes.

Muscle biopsy (Figure 2) of left biceps was done seven days after admission and histologic findings were compatible with marked rhabdomyolysis.

Muscle swelling disappeared after one week of bed rest. One week later there was complete abatement of swelling and tenderness of the involved muscles and all enzymes were at normal levels. At that time, sophisticated muscle tests revealed basically good performance in most muscle groups.

The patient was seen ten months after first appearance of the syndrome. He indicated that one month before his follow-up visit he had had a recurrence characterized by swelling of the shoulder and arm musculature accompanied by dark tea-colored urine which lasted for one week. He did not seek medical assistance and recovered spontaneously. At the follow-up examination all physical findings were normal. Gross manual muscle testing of the upper extremities revealed normal motor power. Electromyography was performed in the muscles of the shoulders and arms using a needle monopolar coaxial electrode; all findings were normal. Repeat biochemical analyses of all elements studied at the onset were normal.



Figure 2. Section of striated muscle showing marked rhabdomyolytic changes with fiber necrosis, perimysial nuclear hypertrophy, and mononuclear and polymorphonuclear inflammatory cell infiltrate.

Myoglobin,[72, 75, 76-79] resembles hemoglobin, differing in that it binds one molecule of oxygen per mol rather than the four by hemoglobin. It releases oxygen at low oxygen pressures (below 20 per cent). In heavy muscular exercise the partial pressure of oxygen is close to zero in muscles. Myoglobin, therefore, plays an active part in the mechanism of sustaining muscle activity. Myoglobin is distributed in all muscles but it is highest in red muscles, which have fewer striations and are adapted for long slow sustained contraction. It does not participate in the contractile process. There is no relation between decreased amounts of myoglobin in muscle and muscle disorders. Muscle myoglobin concentration varies from one species, or individual, or muscle to another. It constitutes 0.7 per cent of wet weight of human muscles. About 7 per cent of total body iron is found in myoglobin. There is some evidence that myoglobin is nephrotoxic.[17, 80] Exercise does not immediately cause maximal muscle fiber disintegration, there being a latent period before myoglobinuria develops at the time inflammation and necrosis are histologically evident.

Serum tissue enzymes[79] become elevated with muscle damage. The enzymes are found in many organs in varying amounts. They are organic catalysts, which govern most body chemical reactions; they make their way into the blood stream in the presence of cell injury.

CPK is found in skeletal and myocardial muscle in very high concentrations. Serum levels become elevated in alcoholic myopathy, muscular dystrophy, and other muscular disorders.

LDH is moderately elevated in delirium tremens and muscular dystrophy.

SGOT is highest in cardiac muscle; in descending amounts, it is found in liver, skeletal muscle, kidney, brain, pancreas, spleen, and lungs. Analysis of serum levels serves as a diagnostic indicator to establish disease of organs, which normally have the highest concentrations in their cells. Disease, injury, and/or inflammation of skeletal muscle increases serum GOT.

GPT is highest in liver with very low concentrations in the myocardium. Accordingly, it reflects hepatic cell damage when serum levels are elevated. In muscle disorders it is a poor indicator. Yet in heroin addicts[37] with myoglobinuria it has been found to be markedly elevated. The possibility exists that heroin addicts have liver damage which is the cause of the elevation of serum GPT.

Aldolase is markedly increased in serum with skeletal muscle injury, muscular dystrophy, and inflammatory muscle disease such as dermatomyositis and trichinosis.

It takes severe damage to release mitochondrial enzymes while slight injury to cell cytoplasm frees its enzymes.

In rhabdomyolysis, the more damage to skeletal muscle, the higher the serum concentration of enzymes; in recovery the serum levels return to normal. Recurrence of attacks light up the entire syndrome and again we have myoglobinuria with high blood levels of myoglobin, tissue enzymes, and all previous findings.

The onset of rhabdomyolysis and myoglobinuria may be triggered by severe exertion but may be unrelated to labor or exercise. During an attack the muscles become swollen, stiff, tender, and the patient experiences weakness and pain. The urine turns brown, contains no red blood cells, has granular casts, abnormal amounts of protein, creatine, and myoglobin and is benzidine-positive for occult blood without hemolysis.

Myoglobin is readily identified in the urine by spectroscopic,[81] electrophoretic[82] or immunological[83, 84] technics. Myoglobin easily passes the glomerular membrane owing to its relatively small size[85] (molecular weight 17,000) which is one fourth that of hemoglobin, cleared twenty-five times faster than the latter, and appears in the urine when blood levels exceed 20 mg/100 ml.[2, 75, 80, 86] There are those[86-88] who hold that the size of the myoglobin molecule is not the only factor and that myoglobin filters with facility because it is not bound to plasma protein.[89, 90]

Marked renal insufficiency and shutdown or respiratory failure may cause death. Postmortem findings in a patient with epilepsy[37] and with heroin addiction[37] revealed extensive degeneration and necrosis of the convoluted tubules, hyaline and granular casts in the collecting tubules, medullary hemorrhage, and normal glomeruli.

The blood chemistry shows elevated levels of myoglobin, urea nitrogen, creatine, potassium, tissue enzymes, especially creatine phosphokinase (CPK) and also lactic dehydrogenase (LDH), glutamic oxaloacetic transaminase (GOT), and aldolase. In heroin-dependent patients elevated glutamic pyruvic transaminase (GPT) was recorded.[37]

It is not proved but held[91, 92] that abnormal muscle metabolism is the underlying cause.

Certain observers[3, 4, 42] reported impaired carbohydrate metabolism and others[2, 60] increased ketosteroid excretion.

Histological findings[1, 2] in biopsied muscles reveal muscle degeneration in acute attacks.[5, 6, 57, 60] All degrees of changes were found but all were myopathic. Between attacks[4, 69] and after the acute phase[3, 37, 90] muscle tissue is normal. In alcoholic patients there is loss of striations, separation of myofibrils and fiber swelling in the acute phase; chronic alcoholics show shortening and variation in size of muscle fibers. Electron microscopy[25, 93] demonstrates condensation, destruction, and fragmentation of myofilaments and destruction of I and A bands. Atrophy without fibrosis[35] is noted in the chronic form. There is active regeneration. In heroin addicts[37] the microscopic appearance varies in patients from random necrosis of individual fibers to massive necrosis of all fibers and tubular aggregates.

No specific therapeutic agents are available for therapy. Symptomatic relief and fluid balance should be provided. In renal shutdown hemodialysis, and in respiratory embarrassment, respiratory assistance, must be instituted. Prevention of recurrences, a common feature of this syndrome, is best attained by avoiding severe exertion or by slow physical conditioning.[10-12] In heroin addiction,[37] if the habit is not controlled, there will be frequent recurrence.

The incidence of death is low but respiratory failure,[65] hyperkalemia,[3] and renal failure[23, 37, 64, 94] have been reported as contributing to fatal outcomes.

Characteristically, when the acute phase subsides, muscle swelling, tenderness, and weakness disappear, the elevated serum enzymes and other blood chemical alterations and the urine analysis return to normal. Some patients have residual local muscle weakness. The duration may be one to six weeks. The clinical reversion correlates with muscle biopsy histology.

Summary

The patients herein presented developed rhabdomyolysis following sudden severe exertion without prior physical conditioning. They demonstrated the classical findings associated with this disorder with serum enzymes rising sharply to extraordinary levels, histological evidence of muscle cell damage, and dark urine which was positive for occult blood though red blood cells and hemolysis were not present. While the urine was not analyzed for myoglobin, the latter was presumed to be present. As muscles became less tender and swollen and function returned to normal, all abnormal findings were reversed.

A bibliography of 94 citations may be obtained directly from Dr. Rosenkrantz.

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Ever think of uterine tumor as a precipitant of intractable heart failure? It is possible.

Uterine Tumor Mimicking Meigs's Syndrome (Intractable Heart Failure)

Nathan Frank, M.D./Jersey City and M. Jeffrey Frank, M.D./ Washington, D.C.

A clinical disorder that may play a role in intractable heart failure more frequently than may be apparent in the literature is the uterine tumor. This tumor mimics Meigs's syndrome, but its mechanism of action is unknown. It may be related to the secretion of a hormone-like substance by the tumor.

Meigs and Cass[1] in 1937 first described right hydrothorax and ascites in association with fibroma of the ovary. In 1954, Meigs[2] revised his original concept and documented the association of right pleural effusion and ascites with pelvic tumors other than fibromas of the ovary. Solomon, Farber, and Caruso[3] say that Salmon[4] (1934) antedated Meigs when he reported the same observations and included uterine tumors as producing the effects as originally ascribed solely to ovarian tumors. The authors suggested changing the syndrome appellation to the "Meigs's-Salmon Syndrome."

A 66-year-old woman was admitted to Christ Hospital, Jersey City, on December 15, 1970 with shortness of breath, palpitation, and fever. She was in good health until a few weeks prior to admission, when she noted increasing dyspnea, both at rest and with exertion, easy fatigability, weakness, palpitation, orthopnea, cough, and anorexia. She had had Sydenham's chorea at age 5. She was unaware of the existence of a heart condition and had not consulted a physician for 26 years.

She was a fair-complexioned woman who appeared chronically ill. Pulse was irregular, small volume, rate 140 with moderate deficit. *Blood pressure:* 112/60. Neck veins flat at 45°. No digital clubbing or cyanosis. She had an apical impulse in the fifth intercostal space just outside the midclavicular line. There were no thrills. A left parasternal thrust was present. Lower retrosternal dullness was increased. The first heart sound was accentuated. An opening snap was heard. A Grade II/VI presystolic rumble was present at the apex. The second heart sound was widely split. *Lungs:* percussion noted, tactile and vocal fremitus were markedly diminished and breath sounds were absent over the right lower lung field. *Abdomen:* she had a huge, stony hard mass arising from the pelvis and extending to the level of the umbilicus. It was smooth and non-tender. Extremities presented no edema or calf tenderness. Dorsalis pedal pulses were present. Homan's Sign and Lowenburg cuff test were negative.

Blood cultures were all negative. *Chest x-ray:* diffuse cardiomegaly with straightening of the left border, right pleural effusion. Barium swallow demonstrated left atrial enlargement. Lung scan negative for pulmonary emboli. Repeated blood counts were within normal range. FBS —114mg%, BUN —20mg%; serum cholesterol —180mg%, L.E. preparation × 3 —negative, serum bilirubin —1.03mg, PBI —8.0mcgm%, T_3 —35%, alkaline phosphatase —27.3 KA units, serum protein —6.5G, albumin —3.0G, globulin —3.5G. ECG's showed rapid atrial fibrillation and digitalis effects.

Her febrility continued in spite of massive doses of intravenous penicillin. The rapid atrial fibrillation and right hydrothorax did not improve with digitalization and diuretics. It was finally resolved that the patient's intractable heart failure might be due to and/or aggravated by the pelvic tumor (Meigs's Syndrome). Thus 27 days after admission, surgery was performed and a large (18 cm × 16 cm × 13 cm) fibroma uteri was removed uneventfully. Shortly following the operation, her fever disappeared, fibrillation was slowed, and the right pleural effusion vanished. She became asymptomatic and has not required any definitive cardiac therapy.

Intractable heart failure can be classified into two types—*primary*, where, too often, little

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can be done because of "pump failure;" and *secondary*, where the causes can often be remedied. Listed among its etiologies are: hyperthyroidism, constrictive pericarditis, pulmonary embolism, tachyarrhythmias, heart block, pulmonary, subacute bacterial endocarditis, active rheumatic fever, anemia, alcoholic myocardopathy, beri-beri, and A-V fistula.

A tenth entity—uterine tumor—may now be added to those inducing apparent intractable heart failure. We know many examples of neoplasms secreting hormones or hormone-like substances alien to the tissue in which the tumor has originated—for example, the inappropriate ADH syndrome produced by lung cancer or the formation of a parathormone substance by malignant tumors of the lung and breast causing hypercalcemia, in the absence of skeletal metastases. Fibromyomata uteri have been documented as associated with secondary polycythemia.

We should be alerted to another possible mechanism for inducing heart stress and resistant congestive heart failure. We suggest a diligent search for a pelvic mass in every female with intractable congestive heart failure.

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We thank Dr. Morris Soled for kindly referring this patient and Mrs. Mona Lynch, librarian, for her diligent search of the literature.

180 Bowers Street

Marihuana Has Promise for Treating Glaucoma

Scientists have confirmed an accidental discovery made in 1971 that marihuana smoking causes a significant decrease in intraocular pressure, a finding which may mean that active components of marihuana may eventually become useful in treating glaucoma. Studies of the effect of marihuana and tetrahydrocannabinol (THC) on intraocular pressure in 30 normal subjects and one patient with severe glaucoma were reported recently at the Congress on Pharmacology in San Francisco by the UCLA School of Medicine and the Division of Narcotic Addiction and Drug Abuse, National Institute of Mental Health. The scientists measured intraocular pressure in the 30 healthy volunteer subjects before they smoked marihuana or a delta-9-THC spiked placebo, and 30 and 180 minutes after they had smoked. Several different strengths of both marihuana and delta-9-THC were found to produce dose-related decreases in intraocular pressure 30 minutes after smoking. Decreases were still present at the three-hour test, although the drop in pressure by that time was less pronounced. The maximum decrease observed was about 36 per cent after the highest dose of natural marihuana.

According to the authors, the practical significance of their findings is that THC or a synthetic derivative may be potentially useful in treating persons with glaucoma. The use of marihuana in one patient with severe glaucoma has had positive results and the investigators are now conducting additional studies in more patients. The study indicates that delta-9-tetrahydrocannabinol is the major active ingredient of marihuana not only with respect to psychological factors, but also with respect to physiological responses such as reducing fluid pressure within the eye. The decrease in intraocular pressure from marihuana smoking was originally observed accidentally during a study of marihuana's role in impairing motor coordination and other functions related to driving an automobile.

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Minocycline is a tetracycline with activity against a wide range of gram-negative and gram-positive organisms.
Contraindications: Hypersensitivity to any tetracycline.
Warnings: The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. Pregnancy: In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. *Newborns, infants and children:* All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg./kg. every 6 hours, demonstrated a decrease in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class. Safe use has not been established in children under 13.
Precautions: Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.
Adverse Reactions: (Common to all tetracyclines, including MINOCIN) GI: (with both oral and parenteral use): anorexia, nausea, light-headedness, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. *Skin:* maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). *Renal toxicity:* rise in BUN, dose-related (see "Warnings"). *Hypersensitivity reactions:* urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. *Blood:* hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.
NOTE: *Concomitant therapy:* Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that MINOCIN is not notably influenced by foods and dairy products.

***Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracyclines are not the drugs of choice in the treatment of any staphylococcal infection.**
†Case Report, Clinical Investigation Department, Lederle Laboratories.

Lederle LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965 436-2

Emotional, sociologic, and medical factors all seem to conspire to produce the addict.

Factors in the Development of Drug Addiction*

Herbert Boehm, M.D./Perth Amboy

Drug addiction was formerly classified as a sociopathic personality disturbance, but otherwise was not defined. The World Health Organization (WHO) has recently replaced the phrase, drug addiction and drug habituation, with the new term, drug dependence. Drug dependence is a state arising from a repeated administration of a drug on a periodic or continuous basis. We have to consider this separately for each drug individually.

The World Health Organization definition stresses a desire or need to continue taking the drug, a compulsive drug use or habituation. Some drugs, such as heroin, lead to bodily dependence, a persistent desire for the drug, a torturing abstinence symptom, which in turn leads to a tendency to increase the dosage of the drug concerned. The chronic abuse of the drug is often followed by changes of personality, sometimes with several social sequelae.

Drug abuse is a flight from a presence which cannot compete with the artificial paradise of the dream world. The patient may develop disturbances in relationships with people, pain and tension symptoms, fear, sleeplessness, and emotional disturbances. The pattern may be accompanied by inadequate personality, neurotic disturbances, a broken home, adolescent reactions, existential crises, and identity confusions. Drug abuse implies increasing amounts of the drugs. The dependence varies from relatively harmless to tragically dangerous drugs, from simple to severe dependence, with tranquilizers, sedatives, and alcohol. Choice of the drug may depend on the environment—marihuana parties, trips in a group, the availability of the drug, and the personality of the individual. For each drug and dosage, a pharmacodynamic effect exists and may lead to euphoria, hallucinations, more vitality, depersonalization, and increase of alertness. We distinguish between primary and secondary drug dependence.

Primary addiction is a desire for the drug to escape from an unacceptable situation. Secondary drug dependence is a chronic desire for the drug because of long use.

The U.S. Bureau of Narcotics, in 1970, estimated that the total number of active addicts is under 150,000. The ratio of males to females is generally about 3 or 4 to 1. Somewhat more than half of the addicts are members of minority groups. Slightly more than half are between 21 and 30 years of age, and about a third are 31 to 40. Juveniles (under 20 years of age) constitute less than 4 per cent of the total. About 12 per cent are over 40.

Most present-day addicts come from the most depressed districts in metropolitan slum areas. In such cultures, relationships between parents and children are likely to be much more disturbed than in the traditional middle class American family. The mother of the addict is often the breadwinner, and the father is often absent or chronically unemployed. In this pattern delinquency is common. The relation-

* Read, by invitation, at the Royal College of Psychiatry, August 20, 1971, in London, and again at the World Health Organization in Geneva, August 26, 1971. The author is Director of Psychiatry at the Perth Amboy (NJ) General Hospital.

ship between addiction and delinquency is not a simple one. There are areas with high delinquency but low narcotic addiction rates. In areas where both rates are high, crimes against property tend to be more numerous, and crimes against persons tend to be fewer in proportionate number. Addiction does not increase criminal activity in general, except for narcotic laws offenses. Sociologic factors contribute greatly to genesis of addiction, and we assume currently that personality factors interacting with sociologic and pharmacologic factors constitute the major liabilities of addicts.

Problems related to drug dependence come to the physician in several ways. Acute or chronic toxicity usually comes to medical attention if the individual (or someone close to him) decides he is sick or out of control. A patient may seek medical contact for difficulties associated directly or indirectly with drug use. The patient may be suffering from obvious toxic or withdrawal effects. The problem of drug dependence may come up unexpectedly in the course of medical management of other conditions, especially accidents, venereal disease, tuberculosis, pregnancy, and hepatitis.

Socially Acceptable Drugs

Alcohol bears the distinction of being the only potent and abusable drug that is universally accepted by society. We are not sure of the exact concentration of alcohol in the blood that causes intoxication. It is generally agreed that a concentration of 200 milligrams per cent is associated with mild to moderate intoxication. The fatal concentration lies between 500 and 800 milligrams per cent. Ironically, this is the one drug which is taken to make you feel "high," yet it is socially acceptable. We could classify coffee and tea as drugs. Many Britons and Americans cannot begin their day without a morning cup. Caffeine is a potential central nervous system stimulant. It can stimulate all portions of the cortex. Nicotine has no therapeutic value now, but it was used at one time medically as a central nervous system stimulant. The dangerous effects of nicotine in tobacco are universally known.

Clinically and pharmacologically, the long-term user of heroin cannot be distinguished from the chronic morphine taker. Since heroin is, after all, only diacetyl morphine, this is not surprising. On a weight basis, heroin is two to three times as potent as pure morphine, and this may account for its popularity. Heroin may be sniffed like snuff, given hypodermically or "main-lined" (taken intravenously). The addict usually equips himself with crude, primitive, or dirty needles and syringes, which is a factor in the high incidence of hepatitis among addicts.

The first time the drug is taken the person may develop anxiety plus such physical reactions as nausea, vomiting, and sweating. On subsequent occasions, he experiences an euphoric glow, lasting about one minute. This has been likened by many addicts to a sexual climax. This in turn may be followed by a lethargic somnolent state in the addict. He then wants neither food, sex, nor companionship. One addict has described heroin as "having all the advantages of death without its permanence." As with other narcotic drugs, tolerance develops to the respiratory depressant, analgesic, and euphoric effects.

Recently there has been a higher mortality rate among addicts due to heroin overdosage, because the purity and strength of the drug is not known to the taker. Packets sold by pushers generally contain only about 5 per cent heroin diluted with lactose or quinine. Sudden cessation of the drug without treatment causes withdrawal symptoms. These include lacrimation, running nose, yawning, perspiration, nausea, vomiting, and coryza. Gooseflesh indicates pilomotor activity. The skin resembles that of a plucked turkey, thus the common expression, "cold turkey."

CNS Depressants

The effects produced by barbiturate and nonbarbiturate hypnotics are similar to the effects of alcohol, depending on the dosage, situation, and personality of the user. The drugs often produce physical and mental lethargy, slurred speech, and loss of coordination. As

with alcohol and the opiates, a physical tolerance develops. An overdose can result in apnea, convulsions, or respiratory arrest.

CNS Stimulants

Stimulants, including amphetamines, are often used to increase mental awareness and create a feeling of well being. The sympathomimetic amines are abused because of their euphoric effect. Unfortunately, no tolerance develops, and a toxic psychosis may occur after several weeks or months of use.

Cocaine causes mood elevation, anorexia, and analgesia, and is considered to be the most potent antifatigue agent known. The abuser frequently overestimates his ability to perform. Euphoria caused by amphetamines or by cocaine is reported by addicts to be very similar. If the dosage is large enough, toxic manifestations, including visual and auditory hallucinations, may occur. Death may come from respiratory depression.

Hallucinogenics

Lysergic acid diethylamide (LSD) is the most powerful and most frequently abused of the hallucinogenic drugs. "Acid" used to be eaten on sugar cubes; now tablets or capsules are usually offered. LSD tends to distort emotions and perception. What was pretty becomes beautiful, what was annoying becomes terrifying. A "trip" may last from 8 to 10 hours. Acts of suicide or other violence may occur. Even months after the drug was taken flashbacks may occur. This may happen if the user is particularly fatigued or under the influence of another drug. Mescaline and peyote are chemically related to amphetamines.

DMT (dimethyl triphamine) is usually smoked with marihuana. It gives a similar but shorter effect than LSD. Its popularity has declined since it reportedly causes brain damage.

STP gives results similar to LSD, but the effect may last up to 90 hours. Emergency room personnel may think that the STP user has taken LSD. If chlorpromazine is administered, the patient may die of respiratory arrest.

Apparently none of these hallucinogenics produces physical dependence. Their danger lies in their emotional effects.

Cannabis (marihuana, hashish) is not pharmacologically a narcotic, but legally it is so classified. Marihuana is not the plant, but the resinous preparation of brown and black flakes from the plant. The active ingredient in the resin is a chemical known as THC (tetrahydrocannabinol). The strength depends on the part of the plant from which the dose is obtained. The concentrated resin, six times as powerful as the leaf derivative, is called hashish. It is most often smoked, but can be mixed into foods and taken orally. Effects from marihuana include relaxation, tranquility, light-headedness, some loss of bodily coordination, intensified sensory perception, and a distortion of time. It may lead to great joy or, on the other hand, to acute anxiety. Hallucinations may occur. The drug may cause tachycardia, appetite for sweets, and conjunctivitis. While marihuana is not physically habit forming, an individual may develop psychologic dependence upon the drug, using it as an anti-depressant.

Miscellaneous Chemicals

Volatile chemicals, such as glue and furniture polish, may achieve an hallucinogenic effect. Delusions of grandeur and delirium may be experienced. Side effects include blood dyscrasias, possible brain damage, conjunctivitis, dizziness, and swollen nose. One youth in New York City leaped from a sixth floor while inhaling glue.

Seeds and spices, such as nutmeg and Mace, are rarely considered drugs. Nutmeg, for example, has been used by prison inmates and may produce feelings of depersonalization and unreality.

Management

Many drug users regard themselves as neither criminal nor ill. The social drinker sees no

reason why he should tell his physician or other advisor about his occasional use of alcohol; users of marihuana view themselves in the same way.

Acute drug reactions should be treated as medical problems. Such care is safer and more effective, and a larger proportion of patients can be induced to accept after-care from a purely medical facility than from a police surgeon or probation officer.

The compulsive drug user should seek psychotherapy (including religious and self-help groups). Group therapy may be of use after treatment for the acute withdrawal symptoms in a hospital. Conventional psychotherapy is less effective than directive psychotherapy.

Another alternative is denial of access of the drug in some countries. Such a program continues to impose jail sentence for criminal activity, but not for mere use or possession. It insists that the addict accept treatment and supervision.

British law permits dispensing narcotics to an addict. In 1970, with a population of 50 million, there were only 1,125 known heroin addicts in England, in comparison with a estimate of 80,000 in the USA. Associated criminal activity in England is negligible when compared to that in the USA.

The goal of society's effort is control and prevention rather than retribution. Only education and counseling offer any real hope. The analogy of the boy who cried wolf is hard to avoid here since it is the professional drug expert's obvious duty to maintain his credibility among those groups who are most likely to need his advice as more new compounds come into the hands of the experimenters. This must be done even at the risk of disapproval from others in the medical community who might hope that the prescriptions against all drugs will be uncritically heeded. Unfortunately, the young people who must be dealt with in this context are already partly alienated from the establishment we represent and they have reserved to themselves the decision about what to believe.

111 Market Street

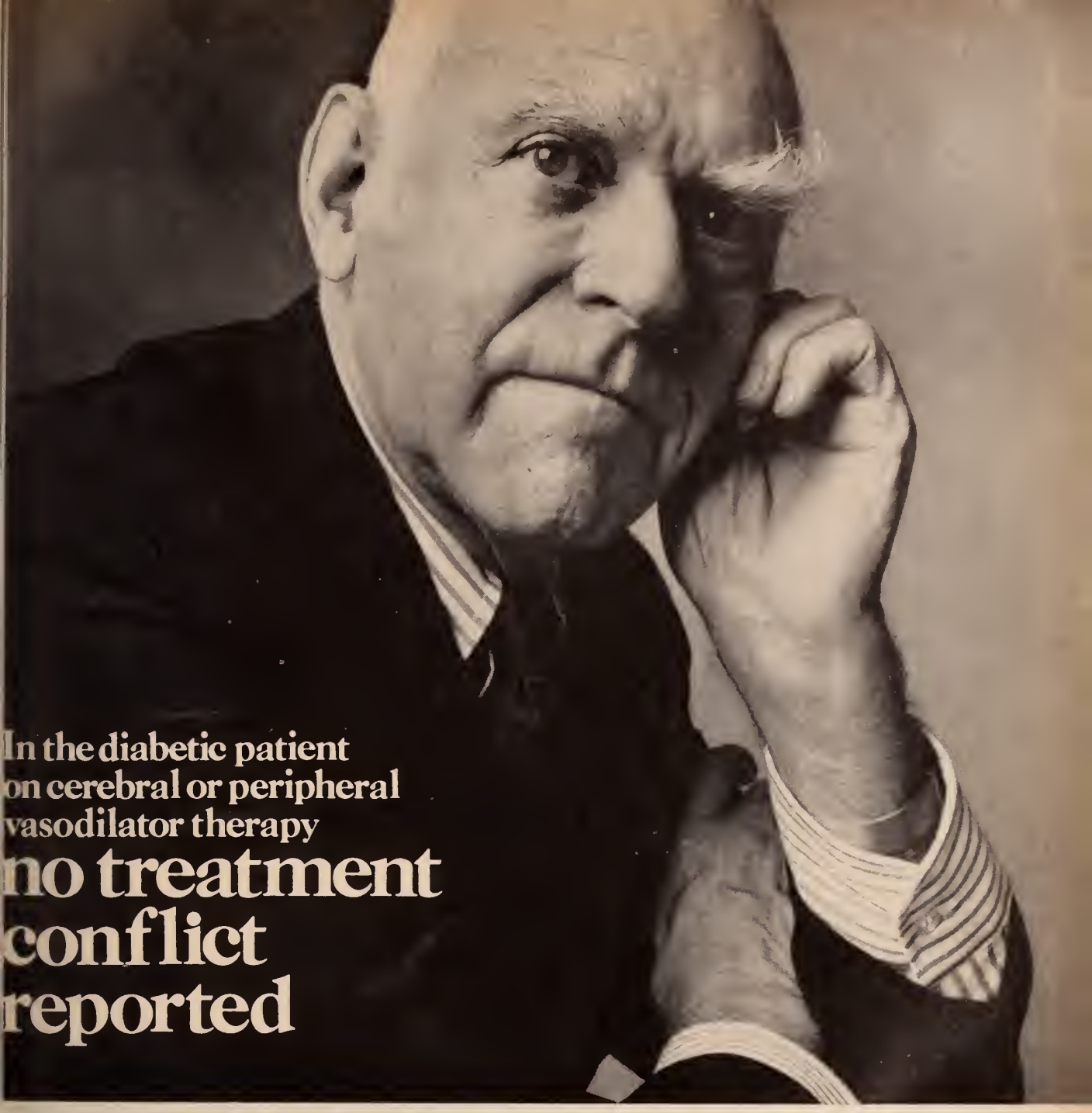
Montezuma's Revenge

North Americans visiting Mexico and Central America are frequently harassed by diarrhea, often called "Montezuma's Revenge." The "official" label is "Travelers' Diarrhea." The usual prophylaxis is to take Entero-Vioform®, but our Food and Drug Administration recommends that iodochlorhydroxyquin *not* be given.

FDA's conclusion is based on recent findings implicating iodochlorhydroxyquin as the cause of a frequently severe neurologic complex sub-acute myleo-optic neuropathy (SMON). Evidence is not yet available to confirm this association, but it appears that too-long-continued dosing with iodochlorhydroxyquin may be a major factor in SMON.

Most tropical disease specialists believe iodochlorhydroxyquin is ineffective for "travelers' diarrhea." Labeling of the product cites only intestinal amebiasis as an indication. There is no acceptable evidence that other halogenated hydroxyquinolines, chiniofon and diiodohydroxyquinoline (Diodoquin), are effective in the treatment or prevention of "travelers' diarrhea."

Travelers to areas where hygiene and sanitation are poor may be able to prevent diarrhea by eating only recently peeled or thoroughly cooked foods, and by drinking only boiled and bottled water. Tap water used for brushing teeth or for ice in drinks may be a source of infection.



In the diabetic patient on cerebral or peripheral vasodilator therapy

no treatment conflict reported

VASODILAN®

(ISOXSUPRINE HCl)

the compatible vasodilator

- no interference with diabetic control . . . does not alter carbohydrate metabolism.[1]
- conflicts have not been reported with diuretics, corticosteroids, antihypertensives or miotics.

There are no known contraindications in recommended oral doses other than it should not be given in the presence of frank arterial bleeding or immediately postpartum.

INDICATIONS: Based on a review of this drug by the National Academy of Sciences–National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

COMPOSITION: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

DOSAGE AND ADMINISTRATION: 10 to 20 mg. three or four times daily.

CONTRAINDICATIONS AND CAUTIONS: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

ADVERSE REACTIONS: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

SUPPLIED:

Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose
20 mg.—bottles of 100, 500 and Unit Dose

REFERENCE: 1. Samuels, S. S., and Shaftel, H. E.: J. Indiana Med. Ass. *54*:1021-1023 (July) 1961.

Mead Johnson LABORATORIES

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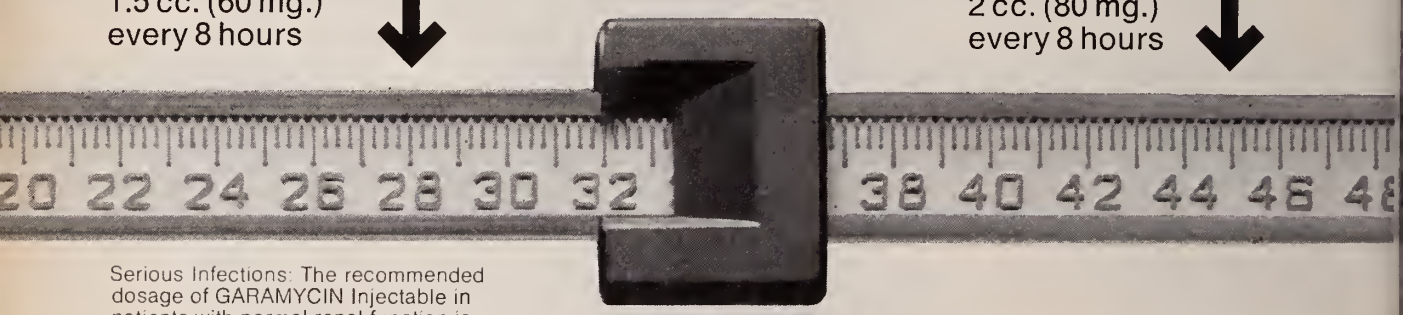
In serious gram-negative infections*

Simplified dosage guidelines

Usual adult dosage--I.M. and I.V.--in patients with normal renal function

132 lbs. or less
1.5 cc. (60 mg.)
every 8 hours

Over 132 lbs.
2 cc. (80 mg.)
every 8 hours



Serious Infections: The recommended dosage of GARAMYCIN Injectable in patients with normal renal function is 3 mg./kg./day administered in three equal doses every 8 hours.

Life-Threatening Infections: Dosages of up to 5 mg./kg./day may be administered in three or four equal doses. This dosage should be reduced to 3 mg./kg./day as soon as clinically indicated.

Children's Dosage—I.M. and I.V.
3 to 5 mg./kg./day in three equal doses every 8 hours.



*Due to susceptible organisms

WARNING
Patients treated with GARAMYCIN Injectable should be under close clinical observation because of the potential toxicity associated with the use of this drug.

Ototoxicity, both vestibular and auditory, can occur in patients, primarily those with pre-existing renal damage, treated with GARAMYCIN Injectable, usually for longer periods or with higher doses than recommended.

GARAMYCIN Injectable is potentially nephrotoxic, and this should be kept in mind when it is used in patients with pre-existing renal impairment.

Monitoring of renal and eighth nerve function is recommended during therapy of patients with known impairment of renal function. This testing is also recommended in patients with normal renal function at onset of therapy who develop evidence of nitrogen retention (increasing BUN, NPN, creatinine or oliguria). Evidence of ototoxicity requires dosage adjustments or discontinuance of the drug.

In event of overdose or toxic reactions, peritoneal dialysis or hemodialysis will aid in removal of gentamicin from the blood.

Serum concentrations should be monitored when feasible and prolonged concentrations above 12 mcg./ml. should be avoided.

Concurrent use of other neurotoxic and/or nephrotoxic drugs, particularly strepto-

Schering

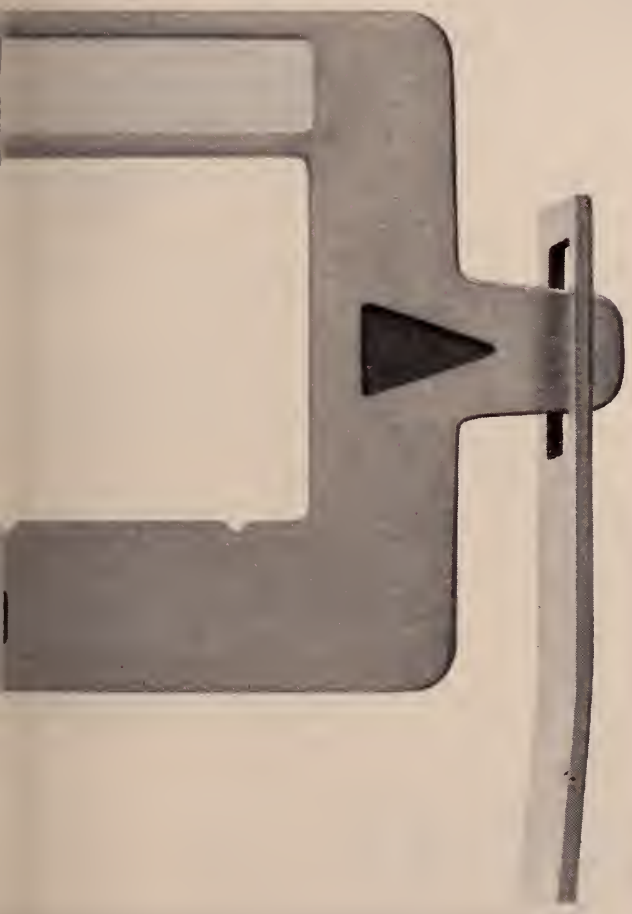
Garamycin®

gentamicin sulfate injectable

I.M./I.V.

40 mg. per cc.

Each cc. contains gentamicin sulfate equivalent to 40 mg. gentamicin



mycin, neomycin, kanamycin, cephaloridine, viomycin, polymyxin B, and polymyxin E (colistin), should be avoided.

The concurrent use of gentamicin with potent diuretics should be avoided, since certain diuretics by themselves may cause ototoxicity. In addition, when administered intravenously, diuretics may cause a rise in gentamicin serum level and potentiate neurotoxicity.

USAGE IN PREGNANCY Safety for use in pregnancy has not been established.

Duration of therapy—I.M. and I.V.

The usual duration of treatment is 7 to 10 days. In difficult and complicated infections, a longer course of therapy may be necessary.

Instructions for I.V. use

Dilution—A single dose is diluted in 100 or 200 cc. of sterile normal saline or in a sterile solution of dextrose 5% in water; in infants and children, the volume of diluent should be less. The concentration of gentamicin in solution should not exceed 1 mg./cc. (0.1%).

Infusion time—The solution is infused over a period of 1 to 2 hours.

Premixing—GARAMYCIN Injectable should not be physically premixed with other drugs but should be administered separately in accordance with the recommended route of administration and dosage schedule.

In adults with impaired renal function

The single dose of GARAMYCIN Injectable given by patient weight remains the same; however, the interval between doses must be extended.

This interval may be approximated by multiplying the serum creatinine by eight as follows:

Serum creatinine (mg./100 ml.) × 8 = frequency of administration (in hours)

This dosage schedule is not intended as a rigid recommendation, but is provided as a guide to dosage when the measurement of gentamicin serum levels is not feasible.

See Clinical Considerations section which follows...

points out the chemical similarity between androgens and estrogens and says that, "The resting state for the central mechanism of gender is female. Only if the hypothalmus is organized by androgens does masculine behavior result." This suggests that we are first females. Our beginnings are unisexual rather than bisexual. To some, the addition of androgens at a significant time of fetal development brings about maleness.

Gadpaille's approach[6] is from the direction of the etiology and psychodynamics of homosexuality. He stresses the importance of rearing, operative in conjunction with genetic-hormonal-constitutional factors. Peer relationships and childhood sex-play are essential to the development of identity and behavior. In distinguishing sexuality from maleness-femaleness, he notes[6] on physiologic grounds that "androgen is the hormone that regulates the intensity of sexual drive in both sexes." The Psychohormonal Research Unit at Johns Hopkins University offers criteria of normal sexual identity in our culture. One in particular stands out because of its implications for unconscious organizing fantasies. In perceptual erotic arousal patterns, males experience genito-pelvic arousal from visual and narrative erotic stimuli—females usually require tactile stimuli. In women, Gadpaille[6] notes a greater lability of sexual identity. In group sexual practices women enter more freely and frequently into homosexual activities with little apparent damage to their heterosexual identities and functions. Finally, he states that in coitus the male is the weaker sex. For the male, so many variables and activities are necessary for proper function that more processes can go awry while the female can be passive or permissive and still procreate. Perhaps this offers added meaning to the greater preoccupation of the man with asserting his maleness.

Money[7] also describes the need for continuing differentiation of sexual identity beyond infancy. These divergent sources bring special emphasis to the common features. Sexual identity is not predetermined; sexual drive and sexual identity are not the same. Hormonal and rearing factors are essential for the drive to operate through an identity commensurate with anatomic equipment, in order to achieve emotional and biologic fulfillment in copulation and procreation.

Rosenbaum[8] published a clinical experience with a young man in analytic psychotherapy. He came for treatment because of anxiety-hysteria which showed the classical signs of castration anxiety and unresolved oedipal conflict. Incidental to the primary symptom was the unusual aspect of a lag in linear growth. He had been taller than the other boys until about the seventh grade (a time of conflict over parental authority and masturbation). As a freshman in high school he was only 61 inches in height, but by his senior year of college he was 5 feet, 11 inches tall. Pediatric studies do show a relationship between length at birth and ultimate height, it would have been of great interest to have this information. Unfortunately it is not available.

The boy came from older parents (mid-forties) who were stern and over-watchful. He had started adolescent masturbation at about thirteen. About that time he was warned by father about insanity resulting from onanism. Shortly thereafter, he witnessed a boy in an epileptic seizure and struggled to suppress his urges. He was frightened by morbid fantasies of death and disintegration. His parents seemed preoccupied with his height, smoking, and masturbation. This involved admonitions, cautions, and regular chart keeping. Father charted his height from age 14 on. Though he consciously stated he wished to grow, he secretly wished to remain small and tried to keep his voice from changing.

This growth spurt which ordinarily comes at the onset of adolescence did not take place here. It was delayed four years. Hormonal studies of young people have shown a constant blood titre of growth hormone. At adolescence, the sharply increased production of sexual hormones seems necessary to activate the growth hormone. This boy did finally reach the proper place on his growth curve. Fortunately, the epiphyseal line had

not ossified. It appears as though the androgen hormonal element was small or absent at the proper time. This type of lag in growth has been described as due to nutritional factors, but there is no such evidence here. Rosenbaum[8] states that in his opinion the inhibition of growth was a physiologic defense against anxiety. There is no certain explanation of the late timing of his growth but there is a clue in that he left home for college at that age.

A girl of 17 came for treatment because of severe loss of weight, agitated depression, nail-biting with other finger mutilations, and suicide threats. The condition was of recent origin (few months) with the following history. In the immediate past summer Nan took a job for the first time and fell in love for the first time. The boy was of an ethnic-economic-cultural group far removed from her own. He was rebellious, fighting the establishment, preoccupied with injustice. She completely identified with him. They were as one. Later that summer, an event involving higher authority took place, in which she recognized that the boy was using her for his goals and didn't love her. Nan became depressed and began to lose some weight. To help her cope with the ruptured romance the parents urged her to leave for a private school. Within a few weeks she lost a great deal of weight, threatened suicide and made many agitated calls home. She was admitted to a private psychiatric facility. This had little effect and she then came for office psychotherapy. During these few months, her menses ceased—a common occurrence in anorexia nervosa.

The family consists of working professional parents and two daughters, Nan being the younger. The atmosphere appears to have been highly competitive. The older was aggressive sexually and intellectually in contrast to the passive Nan. In the family history, the older was an active getter while my patient passively gave up. She was convinced that she was supposed to be the boy in the family and could never gain the approval of her parents. A problem of particular intensity was envy. This was most evident in regard to her sister's scholastic success so highly praised by her parents.

Treatment was analytically oriented psychotherapy of about four-years' duration with sessions two to three times weekly, except for a gap of one and a half years. Preceding this break Nan had improved considerably; she and her parents chose a distant college. There, the emotional breakdown and return of anorexia nervosa followed an involvement and disillusion with a young man quite similar to the one mentioned in the onset period.

From early childhood (about age 4) she has been obsessed by a childhood story in a picture book of a large animal constantly trying to eat a bad man. As treatment progressed, we could see the animal as representing her mother, herself as a bisexual figure and the man as her father. This terrifying fantasy continued actively into the time she started treatment. As evidence of cannibalistic fantasies, at age 9 she humanized an item of food—gave it a name, coddled it, and tried hard to prevent spoilage. During treatment, with the lifting of acute dietary restrictions, she settled down to a vegetarian diet regimen devoid of meat and animal fats.

In a paranoid fashion, she projected her aggression. Any mention or picture of the animal of her obsession sent waves of terror through her as though she were being chased. She saw her sister's scholastic successes as deliberate—just to make her envious. In a reverse introjective mode, as a joke, she uses human names for her foods and has alternating favorites. Her food items are special and may not be touched by other members of the family. However, she repeatedly, more or less openly filches the special foods of others.

In her romance she fuses with the boy. The boy is highly narcissistic and uses her for her appearance (the gaunt, model look) to impress other boys. (Nan is vaginally frigid and on rare occasions has permitted sexual activity in a bizarre/depersonalized state). Soon the young man loses interest and leaves her. With

the awareness of the abandonment, she becomes aggressively depressed; her menses cease followed by loss of weight and then insatiable demands are made on her mother. In a new romance, with the first rush of elation in love her menses return, followed by a return of weight.

In the fourth year of treatment, her menses and weight partly returned. She had her own goals and partially separated from her family had developed a sense of self. Within this same year she grew an inch. Menses and growth, two biologic processes definitely under hormonal control seem to respond to psychologic conflict and its resolution.

Let us go beyond adolescence into the young family years and the examples become endless of psychologic effect on processes hormonally governed. Everyone knows of the woman who couldn't conceive in spite of all tests being normal. She becomes pregnant shortly after adopting an infant. Stories of menses starting and stopping in regard to anxiety can be found on any college campus.

A young mother came for analysis because of frigidity and depression. As her story unfolded, it appeared she had a great deal of trouble with conception. The first was difficult, the second impossible. After six years of tests and consultations, she took fertility drugs and in a while was carrying a second child. Her obstetrician had told her she could not conceive without this fertility preparation. The couple decided that two little girls were enough for them and thus would not try for a larger family. However, under the assurance of the obstetrician, they did not concern themselves with contraception either. After about three months of analysis (five weekly in a classical manner) she became pregnant and delivered a boy close to the anniversary of the analysis. At the time of her conception, a transference reaction had taken place. She believed the analyst was omnipotent and would protect her better than her father and husband. In addition she had become aware of the effects of anxiety and anger surrounding her sexual frigidity.

A young father could not impregnate his wife. After complete testing of both, the laboratory found that he suffered from aspermia. Years passed. They had talked of adopting and then, for other reasons he came for analysis. After two years of analysis his wife was pregnant and in another year and a half, she was again. Surely paternity is harder to prove than maternity and a sperm count was not done subsequent to the pregnancies, but I leave it to your imagination and charity.

There is the other side of the continuum of mind and body that must be considered; the findings of neuroanatomy, physiology, and biochemistry. The controlling relationship of the master gland, the pituitary, to the rest of the endocrine system has been explored and fairly well understood for many years. Thus, this need not be gone into here. But the relationship of the pituitary to the hypothalmus and higher centers is still being explored. The master gland may have a master which in turn is in the service of higher centers in the brain.

The section on hypothalmic tracts, in the psychiatric text edited by Freedman and Kaplan,[3] describes the hypothalamohypophyseal tract which terminates on the wall of blood vessels in the posterior pituitary. The microscopic evidence of typical synaptic vesicles and Herring bodies at their terminations points to secretory capacity. Such material could be carried in portal circulation to the anterior lobe as well; however, the substances and mechanisms of release are not yet known.

Animal experiments show that releasing factors affecting the pituitary come from the tubero-infundibular tract which is itself sensitive to the titre of hormones from the target glands. This creates a feed-back controlling system. From human neuropathology (as well as animal experiments) hypothalmic lesions result in pituitary dysfunction which bring about growth disturbance, cachexia, and gonadal regression.

Another important note in the above-mentioned text is the connection of the hypothal-

mus with the limbic system and its nuclei which in turn are widely connected with the cerebral cortex.

Gadpaille[6] describes more recent findings. He comments on repeated studies that show foci of sex regulatory functions in the hypothalmus, anterior midline, and preoptic areas. Neurohormonal substances from the anterior hypothalmus are carried in the pituitary stalk and then release gonadotropins from the anterior pituitary. Other workers in the field (with whom I have communicated in the last few months) note the elusive quality of these neurosecretory substances or releasing factors. It is not clear whether they can be called hormones, protohormones, or unstable protein molecules which are destroyed or altered as they work.

There are hormonal processes of maturation and growth which appear to be inhibited by emotional conflict and appear to be alterable by psychologic treatment. Neurophysiologists have been able to demonstrate that some areas of the base of the brain clustered around the hypothalmus do influence the secretions of the pituitary and are, in turn, influenced by secretions of the glands controlled by the pituitary. But how mental process of ideation affect and other components of identity reach and influence the hypothalmus remain a mystery.

Within the nervous system we have long known of the role of acetylcholine and its antagonist cholinesterinase in the transmission of impulse across a nerve ending. Psychopharmacology has added a great deal to the understanding of function of the peripheral, central, and sympathetic nervous systems and the treatment of psychiatric and neurologic disorders, especially in the alteration of mood and tension states. Axelrod[10] was awarded the Nobel Prize for Physiology and Medicine in 1970 for work with the catecholamines. This has contributed to the development of psychoactive drugs useful in treating endogenous depression, parkinsonism, hypertension, and other conditions which appear to be related to a disturbance in the biochemistry of noradrenaline and dopamine.

Sutherland[11] received the Nobel Prize in physiology and medicine for his discovery and work with cyclic 3,5, adenosine monophosphate—called cyclic AMP. He had been studying the process of glycogenesis and glycogenolysis in the liver and kept investigating intensively along the chain of processes—such as the activation of enzymes. He found that cyclic AMP is necessary to turn the inactive state of the enzyme to the active state. It acts at the cell membrane from the outside by effecting minor changes in enzyme molecules—perhaps a rearrangement or rotation of genes—like the tumblers of a lock. The next stage of discovery was the wide application of this chemical activator. It was found necessary for the operation of most known hormones and aided by an extra agent in the case of steroid hormones also. Finally, this same activator is found in the entire spectrum of life from the unicellular to the mammal.

Thus cyclic AMP has the role of a primitive communicator. Hormones and enzymes may exist in active and inactive states. When need arises for glucose, this substance acts as a starter and a chain of transmutation begins. Since it exists in lower forms of life which have no specialized nervous system, it may be that chemical activators are the first communicators. The most primitive nervous system would tend to incorporate this earlier system of chemical communication. This is certainly evident at synaptic junctions and would appear to be so at hormonal production sites as well.

In conclusion, I offer the following:

1. Mental conflict and problems of identity seem more active in adolescence. This is especially so in areas of sexual identity.

2. Disturbed psychic balance appears to operate through the cerebral cortex and limbic system to effect excitation in the hypothalmus and nearby related areas.

3. The hypothalmus can produce chemical activators which influence the pituitary in its role as master gland and thus stimulates or inhibits growth and function of primary and secondary sex characteristics.

4. Recent discoveries in the chemistry of transmission of nerve stimulation and hormonal activation seem to point to a chemical communication system, preceding the nervous system, and which was absorbed by the nervous system in its evolution.

5. This archaic chemical communication system may provide the link between psychic activity and bodily development and thus bridge unknowns between psychologic medicine and physical medicine.

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Popularity of Contraceptive Measures

Sterilization became the most popular form of birth control for couples over age 30 during the last half of the 1960's. Younger couples still preferred "the pill," a government-financed study shows.

The 1970 National Fertility Study, conducted under contract with the National Institutes of Health's Center for Population Research, also provided fresh evidence that increased use of contraceptive devices was "a major factor in the drop in the nation's birth rate," which now is at an all-time low. Nearly six million married women were using oral contraceptives in 1970, but "one of the most dramatic findings," was that voluntary sterilization was preferred more often than "the pill" by couples in which the wife was aged 30 to 44. "The jump in reliance on surgical procedures, and the fact that contraceptive sterilization had by 1970 become the most popular method among older couples, appears to reflect the unsuitability of other methods of contraception for many couples who have already had all the children they want to have," said the first published report from the study. This report was written by Charles F. Westoff of Princeton University, former executive director of the Commission on Population Growth and the American Future.

"It is estimated that as of 1970, some 2.75 million couples of reproductive age (15 to 44), and many more since 1970, had resorted to sterilization, which used to be regarded as an extreme solution to the problem of fertility control." The report, based on nationwide interviews with 5,884 married women under age 45 and compared with a 1965 fertility study, said there was little change in the over-all proportion of couples using contraception but significant changes in the methods. Sharp increases were reported in use of "the pill," which remained the most popular contraceptive, sterilization, and the intrauterine device, but a decline in the use of condoms, diaphragms, the rhythm method, withdrawal, and douche. "The adoption of the pill by American women has been an amazing phenomenon, considering the various side effects associated with its use, and is an indication of the wide market for effective contraception," Westoff concluded.

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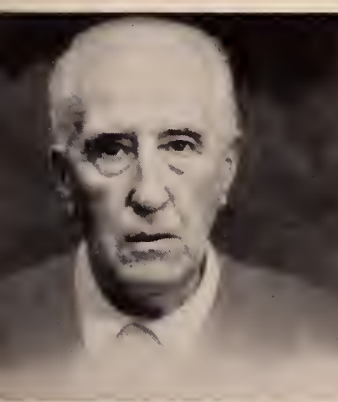
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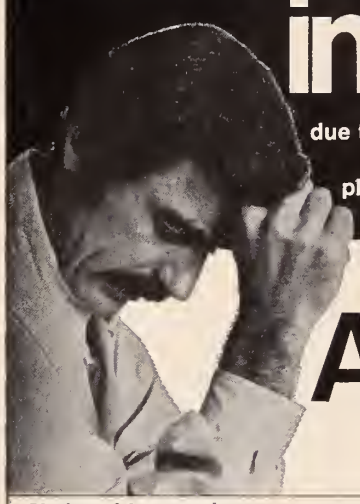
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In interpreting electrocardiograms, attention should be paid to the metabolic process of glucose ingestion.

Postprandial T-Wave Changes*

Relationship to Serum Potassium, Age, and Exercise Electrocardiograms

William S. Hopewell, M.D./Ridgewood

In 1923 Wilson and Finch[1] reported the effect of drinking iced water upon the T-wave deflection of the electrocardiogram. This phenomenon is familiar to most physicians. The observation that the ingestion of an ordinary meal may alter an electrocardiogram was reported by Gardberg[2] in 1938 but this is less well recognized and the mechanism of these changes remains uncertain. Fluctuation in serum potassium levels has been discussed as the etiology,[3, 4] as well as the presence of coronary artery disease.[7] This study was undertaken to investigate the relationship of these factors to postprandial T-wave changes.

Methods and Materials

Serial electrocardiograms were studied after the ingestion of glucose in 37 volunteers. All subjects had fasted for twelve hours. Baseline electrocardiograms and blood chemistries, consisting of glucose, potassium, sodium, cholesterol, and uric acid were taken in the fasting state. Seventy-five Grams of glucose were administered orally in a room temperature solution (Glucola)®. At 30 minutes, 60 minutes, 120 minutes, and 180 minutes electrocardiograms were taken, and blood for glucose and potassium was obtained. During the test subjects were sedentary but not at bed rest.

Subjects

Group I—15 males between the ages of 25 and 35 with normal fasting electrocardiograms and no history of heart disease or factors predisposing to heart disease.

Group II—3 males and 1 female under the age of 40 with non-specific T-wave changes (low voltage or flat T-waves).

Group III—10 males between the ages of 55-70 with normal fasting electrocardiograms and no known coronary artery disease.

Group IV—9 males between the ages of 55-70 with abnormal fasting electrocardiograms, with or without a history of known coronary artery or cardiac disease.

Results

Electrocardiogram T-wave changes were classified as "minor" or "major." Rounding of T-wave configuration or a decrease in T-wave amplitude of less than 50 per cent of baseline amplitude was considered to be minor. A decrease in T-wave amplitude greater than 50 per cent of baseline amplitude, or inversion of the T-wave, was considered to be major.

Group I—Minor changes occurred in all 15 subjects. Major changes were not observed. The maximum changes occurred at the 60 and 120 minute intervals. At 180 minutes all electrocardiograms had returned to the baseline. In some tracings the T-waves appeared "peaked" at 180 minutes compared to the fasting tracing. Maximum changes were found in leads V_5 and V_6. No changes were found in other leads that were not found to a comparable or greater degree in V_5 and V_6.

Although changes in serum potassium levels did occur, no pattern was found in the serial

From the department of medicine, Valley Hospital, Ridgewood, New Jersey. This study was supported by a research grant from the Bergen County Heart Association.

values. Likewise no correlation was found between the potassium levels and T-wave changes. No subjects had abnormal glucose tolerance curves.

Group II—T-wave changes occurred in all subjects. In one a slightly negative T-wave in V_5 became more deeply inverted at 60 minutes and 120 minutes. In the other three, minor changes occurred, consisting of further flattening of the T-waves. As in group I, maximum changes occurred in leads V_5 and V_6 and at 60 and 120 minutes.

No pattern in the changes in the potassium values or correlation with T-wave changes could be found. None of the subjects had abnormal glucose tolerance curves.

Group III—In all ten subjects T-wave changes occurred. In two the changes were marked. In the remaining eight the changes were minor. As in the other groups, the changes were maximum in leads V_5 and V_6 at 60 and 120 minutes.

No pattern was found in the changes in the potassium levels and there was no correlation with T-wave changes. Four subjects were found to have abnormal glucose tolerance curves (blood glucose greater than 120 mgm. per cent at 120 minutes). In one of these the T-wave changes were marked; in the other three the changes were minor.

Group IV—T-wave changes occurred in all nine subjects. In six the changes were marked. In three the changes were minor. As in the other groups maximum changes were seen in lead V_5 and at 60 and 120 minutes.

In four subjects with marked T-wave changes a stepwise reduction and rise in serum potassium levels occurred. In the other two with marked changes and the three with minor changes, no pattern was seen. The serial potassium values of the six patients with marked changes are listed in Table 1. Abnormal glucose tolerance curves were found in four subjects. Three of these showed marked T-wave changes.

Table 1

SUBJECTS (GROUP IV)	FASTING	MINUTES AFTER GLUCOSE 30	60	120	180
#1	5.2	4.3	5.0	4.6	4.7
#3	4.5	4.6	4.0	4.2	4.3
#6	4.2	4.3	4.2	4.3	4.3
#7	4.1	3.4	3.7	3.9	4.3
#8	4.5	4.2	4.4	4.5	4.3
#9	5.6	5.0	5.4	5.6	5.0

Serial potassium values (meq/L) in 6 subjects with marked post-glucose T-wave changes.

Exercise Electrocardiograms

Standard Double Master's exercise electrocardiograms were done on the following subjects:

Group I—One subject who showed minor T-wave changes with glucose demonstrated no ST-T changes with exercise.

Group II—One subject who developed further flattening of T waves with glucose demonstrated no changes with exercise.

Group III—Two subjects who showed minor changes with glucose demonstrated no changes with exercise. One subject who developed marked changes with glucose showed no changes with exercise.

Group IV—One subject who showed minor T-wave changes with glucose developed no changes with exercise. One subject who developed marked T-wave changes with glucose showed a significant (greater than 1 mm. depression) ST change with exercise. One subject who showed marked T-wave changes with glucose demonstrated some T-wave flattening but no ST segment changes with exercise.

Comment

In 1938 Garberg[2] found a 30 to 50 per cent decrease in the height of the T-waves following the ingestion of an ordinary meal in seven out of nine normal subjects. These changes were maximum at 1 hour and persisted up to 2 hours.

In 1946 Simonson, *et al.*,[5] stated that "it is surprising that no experimental study on the influence of meals on the electrocardiogram

has been reported." They studied normal subjects with electrocardiograms immediately before and 30 minutes after a meal. Caloric content of the meals varied from 942 to 1548 calories and the carbohydrate content between 41 to 61 per cent. Variation of the fat content did not cause changes different from those in the standard meals. No changes were found in the duration of the P-wave deflection, PR interval, QRS complex, or ST segment. Frequent but not statistically significant changes were found in P-wave amplitude and heart rates. Statistically significant changes were found, however, in the T-wave amplitude in leads, I, II, III, and CF_1, CF_2, and CF_6. An increase in sympathetic stimulation was suggested as the explanation of the T-wave changes.

Further studies by Simonson and Keyes[6] on "normals" over the age of 40 showed changes similar to the previously studied younger group and no difference between males and females. Subsequent reports indicated that the changes may be more marked in patients with coronary artery disease and Simonson and McKinlay[7] proposed the use of a meal as a "stress test" for coronary artery disease.

Abnormal changes (appearance of abnormal T-waves or changes greater than occur in 98 per cent of the normal group) were found in 9 out of 16 patients with "suspected coronary insufficiency" and in 11 out of 23 with "coronary insufficiency." Eight out of 21 patients with hypertension also showed abnormal T-wave changes. The frequency with which normal or borderline electrocardiograms became "abnormal" in these groups led Simonson and McKinlay[7] to conclude that "the chance of discovering latent changes in patients with suspected coronary insufficiency by means of the test meal appears to be high."

The clinical importance of postprandial T-wave changes and the possibility of misinterpretation of electrocardiograms was emphasized by Rochlin and Edwards[3] in 1954 when they reported four cases that had been diagnosed as coronary artery disease on the basis of abnormal T-waves but in whom the changes could be reproduced by the administration of 100 Grams of glucose or a high carbohydrate meal. Similar changes were also produced by giving insulin and were prevented by the addition of 3 Grams of KCL to the carbohydrate. Serum potassiums were determined in one patient and showed a drop from 4.1 meq/L to 3.6 meq/L at one hour.

In studying 85 healthy males after the ingestion of 100 Grams of glucose, Rochlin and Edwards[3] found T-wave depressions in 55 subjects. Despite the lowering of the T-waves no consistent changes in the spatial vector angle or ventricular gradients were found. Because of the prevention of changes by the administration of potassium and the production of similar T-wave changes by the use of insulin they considered the mechanism to be attached to the redistribution of intracellular myocardial potassium under the influence of ingested glucose and release of endogenous insulin.

The advisability of recording routine electrocardiograms in the fasting state was further emphasized by Sears and Manning[4] who found 78 electrocardiograms with abnormal T-waves in 2,000 routine tracings of healthy aircrew men. All 78 tracings were subsequently normal when taken in the fasting state. Because of the rapid appearance of the T-wave changes after the ingestion of glucose they doubted that the changes were due to insulin and potassium.

The present study again demonstrates that T-wave changes are produced in all individuals by the ingestion of carbohydrates. The use of a small volume (280 cc) of fluid has eliminated changes due to possible gastric distention and the temperature of the solution at 68 to 72 degrees avoided changes with glucose alone, indicating that the carbohydrate content is the important factor in the production of "postprandial" T-wave changes. Studies using only fat or protein, however, have not been done.

Although T-wave changes occur in all individuals, marked changes occur more frequent-

ly in subjects over age 55 (Groups III and IV), suggesting that coronary artery disease may accentuate postprandial T-wave changes. However, no relationship between the occurrence of marked postprandial T-wave changes and abnormal exercise electrocardiograms (Master's Test) was found. Marked postprandial T-wave changes were found both in subjects with and without abnormal exercise electrocardiograms. Because of this and the appearance of some degree of T-wave changes in all subjects, the postprandial electrocardiogram cannot be used as a reliable test for coronary artery disease or insufficiency. The occurrence of angina pectoris after meals is recognized[8] and presumably is due to alterations in coronary blood flow. Whether the T-wave changes observed here are related to the production of angina is unknown.

An attempt to correlate the T-wave changes with variations in serum potassium levels was unsuccessful. The similarity of the T-wave changes to electrocardiogram changes produced by the lowering of potassium levels and the reports of the prevention of postprandial T-wave changes by the simultaneous administration of KCL do suggest, however, that shifts in potassium concentrations are important. Currens and Crawford[9] have shown that extracellular potassium measured in the serum may bear little relationship to electrocardiogram changes from disturbances in potassium metabolism. Determination of potassium levels in the coronary sinus blood following the ingestion of glucose might show a more consistent relationship to T-wave changes. No reports of changes in serum potassium levels during routine glucose tolerance tests could be found for comparison with the values obtained in this study.

Conclusions

I. Electrocardiogram T-wave changes occur in all individuals following the ingestion of 75 Grams of glucose.

II. Minor changes (lowering of T-wave amplitude) is the usual finding. Marked changes (flattening or inversion of T-waves) is seen more frequently in older subjects (over 55 years of age.)

III. The magnitude of the T-wave changes could not be correlated with changes in serum potassium levels, or the presence or absence of abnormal exercise electrocardiograms.

IV. Postprandial T-wave changes may account for a significant portion of "non-specific T-wave abnormalities" and such electrocardiograms should be repeated in the fasting state.

Summary

Thirty-seven volunteers were studied with serial electrocardiograms and serum potassium levels after the ingestion of 75 Grams of glucose. Postprandial T-wave changes were found in all subjects. A minor lowering of T-wave voltage was the most frequent finding. Marked changes of T-wave amplitude occurred more frequently in older subjects. No correlation between T-wave changes and serum potassium levels was found. Exercise electrocardiograms also did not correlate with the magnitude of postprandial T-wave changes.

The author wishes to express his thanks to Mrs. Susan Hayn and Mrs. Rosalyn Knight for their technical assistance.

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WARNINGS: If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastic breast carcinoma. If this occurs, the drug should be discontinued.

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The good practitioner looks beyond the joint in seeing a patient with arthritis.

Arthritis as a Manifestation of Various Disease States*

Sheldon D. Solomon, M.D./Marlton

Rheumatic complaints are frequently the early manifestation of diseases affecting primarily other body systems or organs. Several mechanisms for this expression exist. By understanding these, one should be able to diagnose the underlying diseases early in their course.

1. *Production of substances which directly cause joint inflammation.* An example of this would be the excessive production of uric acid secondary to rapid turnover of cells as seen in the myeloproliferative disease such as polycythemia vera. Secondary gout may be suspected by the lack of family history and the very high blood uric acid (often greater than 14 mgm per cent).

2. *Production of substances which indirectly cause joint inflammation.* Hyperparathyroidism is an example. In 7.5 to 10 per cent of these cases, the pseudogout syndrome develops. Here the excessive parathormone levels lead to an elevated calcium pyrophosphate product which, for an unknown reason, precipitates in joint spaces. Every case of pseudogout should have several calcium determinations to rule out hyperparathyroidism.

Distant tumors may cause rheumatic syndromes. The prototype here is dermatomyositis. In patients over 40 there is a 30 per cent chance of an occult tumor being present; mechanism is unknown, but is probably a substance secreted by the tumor.

3. *Production of substances which alter joint structure*, e.g., acromegaly. Here excessive growth hormone leads to disordered cartilage growth followed by advanced degenerative changes (40 per cent). This syndrome may be associated with carpal tunnel syndrome in 50 per cent of the cases due to soft tissue swelling in this area. Hence a patient with severe degenerative changes of the hands along with a carpal tunnel syndrome should be evaluated for a pituitary tumor.

4. Through its sieve-like function, the synovium allows soluble antigen-body complexes to pass, which, *via* complement activation, stimulate joint inflammation. This is true not only of the "collagen vascular diseases" as S.L.E., but it explains the early generalized arthritis of hepatitis. In one series, all patients with this had Australian antigen in their blood. This type of patient may not be jaundiced so that the possibility of hepatitis has to be considered in a patient with acute onset polyarthritis.

5. *Abnormal neurovascular reflexes; e.g., hypertrophic osteoarthropathy.* Here an intrathoracic malignancy or infection may give rise to the triad of periostitis, clubbing, and arthritis. Removal of the primary problem or an intrathoracic vagotomy clears the arthritis.

6. A *generalized deficiency* of the collagen supporting tissues may first manifest as joint

*Read before the Section on Rheumatism, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972.

pain due to the lack of support; lax joints develop premature degenerative arthritis (Ehlers-Danlos Syndrome).

7. *Unknown mechanisms.* Erythema nodosum may be associated with acute arthritis, and mediastinal adenopathy (Lofgren's syndrome). The mechanism is probably a hyper-sensitivity reaction. This syndrome probably is a self-limiting form of sarcoidosis.

Remember that a rheumatic complaint may be a manifestation of non-articular disease. It is imperative to perform a thorough general examination on any patient complaining of arthritis.

336 Route 70

Red Tides in the Sunset

"Red Tide" and excitement over New England shellfish left millions of concerned consumers. Rutgers University marine scientists point out that New Jersey waters may have had red tides in the past, but that there are many kinds of red tides. Thus, an earlier occurrence left millions of terrified Egyptians in its wake. Pick up the Old Testament, turn to Exodus, VII, 20-21, and start reading: ". . . and all the waters that were in the river died; and the river stank, and the Egyptians could not drink of the water of the river; and there was blood throughout all the land of Egypt."

A related trifle to add to your store of trivia is that the Red Sea derived its name from a more or less permanent supply of a red tide. There isn't *a* red tide; there are many red tides, some of which are deadly, and others harmless. So, if you've seen one red tide, you haven't seen them all.

The various red tides are collections of algae. At the Rutgers Marine Sciences Center, Dr. Edwin T. Moul spent many years getting to know these tides. He is professor emeritus of botany and continues to study them despite his retirement.

One of the problems in trying to set a situation like this straight is that we are dealing with organisms without common names. "Red Tide" is a handy common name, but it is meaningless, because being red is not important enough as a separate characteristic. But laymen confronted by scientific names are as confused as a Scandinavian guest at a Macedonian wedding.

The alga that put a crimp in New England clams is normally in the waters off eastern Canada, where it is almost always a problem. Its full name is Gonyaulax tamarensis and it has long been know to cause paralytic shellfish poisoning. But it isn't really red; it is yellow-green or yellow-brown and is found in the Bay of Fundy and the Gulf of St. Lawrence.

New Jersey residents and visitors can consider themselves fortunate when it comes to red tides. All Jersey red tides are harmless. Jersey shore bathers and boaters frequently see "red water" and become concerned, but such concern is needless. The organisms discoloring the ocean may be Prorocentrummicans or Massartia rotundata. Three other red tide algae inhabit Delaware Bay and all are harmless. These are Gonyaulax spinifora, Gymnodinium splendens, and Amphidinium fusiforme. Even though these five red tides algae are harmless to man or beast, bathers object to them, fearing possible skin irritation. There is no basis for such concern. The algae may discolor the water, but that's all.

Recently a team of botanists analyzed one of the harmless red tide algae found on the west coast and discovered surprising nutritional qualities. It produced growth of laboratory animals equivalent to milk protein. So, what people have been calling "Red Tide" is really a "Red Tide Gang" and someday we may be eating one instead of fearing it.

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References: 1. Itkin, I. H., Am. Fam. Phys. 4:83, 1971. 2. Feinberg, S. M., Consultant Sept., 1971, pg. 32. 3. Bookman, R., Ann. Allerg. 29:367, 1971.



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Orthopedic Resident Training Program*

Anthony F. DePalma, M.D./Newark

In this presentation, I will describe the type of orthopedic training that is evolving at the New Jersey College of Medicine, the goals which must be reached, and the reasons for such a program. Up to 15 months ago a fully integrated academic orthopedic training program in New Jersey did not exist. Many community hospitals have fully or partly accredited programs; but, most of these hospitals labor at a great disadvantage to meet the board requirements for certification. This is caused by the many deficits in most community hospitals such as (1) the lack of basic science departments, (2) the lack of full-time instructors of education whose chief function is to coordinate postgraduate education, (3) the lack of staff doctors interested in basic and clinical research, (4) the lack of research facilities, and (5) the lack of clinical material in certain areas of orthopedic training such as children's orthopedics, rehabilitation, hand surgery, trauma, and surgery of the rheumatoid patient. To meet board requirements, it is necessary for these programs to farm out their residents to other institutions where the needed clinical material is available and to send residents to postgraduate courses in the basic sciences, prosthetics and orthotics, and hand and rheumatoid surgery. Such programs, of necessity, become fragmented with no strong parent core. Also, such programs do not attract the best grade of residents and certainly do not motivate young men to pursue academic careers. It is ironic that New Jersey, the most populated state in the union per square mile, stands last in its contribution to the academic pool in all disciplines in medicine and surgery. The reason for this is obvious. The lack of medical schools.

Dr. Goldenberg† was fully aware of the significance of the deficits I have just enumerated and had plans to rectify them. Unfortunately, he was denied the time to enact his plans. Upon my arrival on the scene 15 months ago, I inherited, to say the least, a much confused and disjointed Division of Orthopedic Surgery. However, it soon became apparent that out of this confusion and disorganization, it was possible to crystallize a highly sophisticated academic department, dedicated to high-level patient care, teaching, and research. The reasons that this could be done are listed as follows:

(1) There is ample clinical material in all areas of orthopedic surgery, so much so that the current ward census is between 75 and 80 beds.

(2) There is a large out-patient department with diversified clinical material.

(3) The basic science departments are of a high caliber and willing to do postgraduate teaching.

(4) Research space facilities were available to the Orthopedic Department and, finally, the administration is sympathetic and cooperative.

(5) Chiefs and directors of the orthopedic services in many of the surrounding community hospitals were ready to participate in the development of an academically oriented program with the medical school's hospital as the central core of the program.

However, in spite of the diversified and abundant clinical material at Martland Hospital, and in spite of the availability of the basic

* Read before the Section on Orthopedic Surgery, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972. Dr. DePalma is Professor and Chairman, Division of Orthopedic Surgery, CMDNJ (Newark).

† Dr. Raphael R. Goldenberg (deceased), former Professor of Orthopedic Surgery, CMDNJ (Newark).

science department and research and teaching facilities available at the medical school, certain deficits had to be corrected to establish a broad-based training program. It lacked concentration of clinical material in certain specific areas—for example, adult reconstruction orthopedic surgery in such concentration as seen in a Veterans Administration Hospital. It lacked a crystallized children's program, which, today, deals primarily with the difficult problems of congenital and developmental defects and genetic aberrations and requires a more sophisticated multi-disciplined approach than the type of children's surgery we were doing three decades ago, and it could not provide exposure of the residents to that patient-physician relationship cultivated in private practice. No single institution whether medical-school hospital or community hospital can provide a total program necessary to train physicians and surgeons. It was for this reason that the American Board of Orthopedic Surgery and the Orthopedic Residency Review Committee, after exhaustive studies, favored broad-based programs comprising community hospitals affiliated with medical school centers. Only programs so concentrated can meet the challenges posed by the changes in a world of rapidly developing knowledge and by the progressive changes in our social and economic systems.

Based on these concepts, the New Jersey College of Medicine Affiliated Orthopedic Program evolved. This comprises six affiliated hospitals and the Martland Medical Center which is the parent institution. The program is under the guidance of a Board of Directors which comprises the Directors or Chiefs of the affiliated hospitals, and the Professor of Orthopedic Surgery of the New Jersey College of Medicine. The Board of Directors meets relatively frequently and establishes all policies governing the program. It selects all new residents, it evaluates the level of performance of all residents every six months, and it judges the merits or demerits of the participating, affiliated hospitals.

Some of the pertinent features of the program are as follows:

It is a five-year training program; that is, five years from graduation from medical school. If an applicant has served one year internship, his orthopedic training period will be four years; if he has served an internship and one year surgical residency, his training period will be three years; if he is fresh out of medical school, the training period is five years. Residents in the last category may raise some problems for first-year training has not as yet been clearly defined. Most likely, it will be a year spent in related departments such as plastic surgery, neurology, rheumatology, or radiology. In general, the policy is to have as many first-year residents as possible serve their first training year at the Martland Hospital. Those who cannot be fitted into this scheme will spend their second year at the parent institution. During this first year, they will cover most of the basic sciences. These courses are now well established in anatomy, pathology, biomechanics, prosthetics, and orthotics. After the first year, the residents are rotated through the affiliated hospitals; each rotation period is six months. An effort will be made to bring all residents back to the parent institution for at least six months of the senior year.

Those residents who have special interests in specific areas are encouraged to pursue their inclinations. All residents beginning with the 1972 class will be assigned a clinical or basic science research project. Several research projects are well under way and should be reported in the near future.

Most residents while at Martland participate in undergraduate teaching; the residents gladly perform these exercises and find them both rewarding and stimulating.

For the purpose of better patient care and to concentrate special clinical material for teaching purposes, four special clinics have been established. A children's clinic, a hand clinic, an amputee clinic, and a scoliosis clinic. The scoliosis clinic is based in the Hospital for Crippled Children and Adults and is a good example of the utilization of special

clinical material concentrated in an affiliated hospital.

Finally, all residents, regardless of where they are serving, keep constant contact with the parent institution by attending and participatting in formal presentations, resident seminars, course lectures, courses in continuing education, and regular literature review meetings.

This, in brief, is the skeleton frame-work of the New Jersey College of Medicine's Affiliated Orthopedic Training Program. It is gaining in popularity as evidenced by the number of residents requesting admission to the program. In the year from January 1971 to January 1972, we received 150 applications. We are now able to choose high grade residents; many graduating from our own medical school. The 1972 quota of new residents is filled and only one berth remains unfilled in the 1973 quota.

But, does this single affiliated program meet the needs of the community and of the regional orthopedic surgeons? No, it does not. In fact, it falls far short of their needs. In order to correct this deficit more medical schools must be established in New Jersey to meet not only our needs but those of all disciplines in medicine and surgery, for their present frustrations are the same as ours.

I do envision one mechanism which could fill the gap, at least in part, until more medical schools appear on the scene. I throw this thought to you for your scrutiny and study. The basic core of the present program at the medical school could be extended so that it serves as the parent institution for several units of affiliated hospitals. For example, the present program contains six affiliated hospitals with their home base at the Martland Medical Center. Let us call this group Unit A. Similarly, other such groups of hospitals, let us say Unit B, Unit C, and even Unit D could be affiliated with the medical college. Each unit would have its own Board of Directors and its own group of residents. Residents would not cross unit lines during their rotations. Such programs would require an increase in the full-time faculty at the medical school and a rededication of the chiefs and directors of the affiliated hospitals to specific and formal teaching of the residents in their particular unit. I can foresee a high level of wholesome competition between the different units. This competitive spirit favors production of an excellent byproduct, the totally trained orthopedic surgeon. Also, such programs would, of necessity, require certain financial responsibilities to be borne by all the participants concerned.

A recent study by the Academy of Orthopedic Surgery clearly indicates that if the yearly rate of new orthopedic surgeons, certified by the Board continues, the field will be supersaturated by 1980. At this time, there is considerable study in the ways by which this can be prevented. It may be that board certification will be more difficult to obtain, or that the standards for approval of orthopedic programs will be more stringent, but, whatever the mechanisms, some form of restraint is about to descend on us. Many years ago, I advocated the need adequately to compensate residents in training. Today stipends paid residents have far exceeded my expectations and somewhere along the line unified measures will have to be instituted to stem the tide. At a recent meeting of chairmen of orthopedic training programs, grumbling on this topic was loud and clear, and many were ready to discuss measures to bring resident stipends to reasonable levels.

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Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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The Many Worlds of Today's Physician*

Richard I. Nevin/Trenton

Once again through your kindness I have the privilege of extending to you the official and hearty greetings of The Medical Society of New Jersey, its compliments for your splendid work in the year now closing, and its earnest wishes for the success of all your undertakings in the year that is about to begin.

It is comforting and encouraging to realize that not only are you as individuals devoted to your chosen members of the medical profession, but you are ready, as an organized group, to aid our members, your husbands and brothers, in all that they do and strive to do.

With every passing year, even with every passing day, I am overwhelmed by the consciousness of the immensity of the scope and number of things that physicians today are being called upon to do. Time was when physicians merely had to spend themselves in striving to restore the sick to health. Now they are expected not only to do that—but to snatch them from the clutches of Death itself at times, and to so restore them that no lingering impairmants of health or limitations of function persist. If they do so persist, the hapless physicians face the bedevilment of malpractice actions.

Today's physicians are also expected to keep the well from falling ill, even though patients in many instances refuse to adhere to the rules for living that their physicians lay down as basic for the preservation of health.

Physicians today, especially under governmental programs, are being called upon to see increasing numbers of patients of all kinds but are cautioned that, while the quality of medical care must be maintained and adequate levels of services delivered, there must be stringent limitation of costs. To this end, physicians' incomes are unfairly governed and controlled, and they are required to have available lists of their basic professional charges, presumably to stimulate the money-wary patient not to patronize the physician whose charges exceed those of other physicians in his neighborhood.

In their spare time, physicians are urged to participate in community health planning at all levels, to assuage the demands of politicians and consumers alike, and to find a means of overcoming drug addiction and rampant venereal disease by the use of every therapeutic modality except the imposition upon the errant patient of the obligation to make heroic efforts at self-denial and self-control.

We live in an age when one of the popularly accepted goals that education and society urge upon the individual is "self-fulfillment." Unhappily this term "self-fulfillment" is too often taken to mean "doing whatever you want to do," "having your own way," "doing your thing," "indulging yourself." It is as though self-fulfillment were to be realized only by the unrestricted indulgence of the

*Address to the General Session of the Woman's Auxiliary, May 8, 1972, Atlantic City. Mr. Nevin is Executive Director of The Medical Society of New Jersey.

individual's appetites and desires. It fails to take into account, however, that universal indiscipline inevitably produces universal discontent, disorder, and discord. We are, by slow degrees, learning this truth by harsh experience.

Recently I found myself thinking of today's physicians and the myriad challenges that society, legislators, and people call upon them to meet, as I listened to the hit song from *The Man of La Mancha*—"The Impossible Dream." It seems to me that doctors are being cast today in the role of Don Quixote, who has been described as one whose mind is so crazed by reading romances of chivalry that he believes himself called upon to redress the wrongs of the whole world. Because his mind was muddled, Don Quixote spent his energies in a series of impractical escapades that could not hope for successful eventuation. His spirit was willing but his judgment was weak . . . that is why, as the song suggests, the quest to which he dedicated himself was foredoomed to failure . . . it was impossible.

Maybe some, if not most, of the goals being forced upon physicians of today are quixotic and impractical. Miguel Cervantes had his reasons for creating the character and the droll absurdities of Don Quixote's life. One explanation is that Cervantes wanted to create an ironic story of an idealist frustrated and mocked in a materialistic world. But our physicians live in a real world and are real people. If society burdens physicians with quests that cannot come off, with goals that cannot be attained, then the result will be disenchantment of physicians, abandonment of their ideals and dedications, and capitulation to the contagions of a cynical and unaspiring world. . . . This we must not let happen —not to the kind of physicians we both know and love.

That is where you of the Auxiliary can serve Medicine and your particularly beloved physician magnificently. Encourage them not to succumb to the growing popular sense of frustration, of pessimistic hopelessness.

We may be imprisoned in a frame of time but we as individuals are still essentially free.

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> And in my soul am free,
> Angels alone that soar above
> Enjoy such liberty."

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***AVAILABLE ON REQUEST:** Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

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Glucagon may be a warehouse of releasable blood sugar when needed.

Special Article

Is Low Blood Sugar Necessary?*

George A. Sheehan, M.D., Red Bank

The fuel content of an ordinary 150-pound human being is approximately 166,200 calories; 1,200 in carbohydrates, 25,000 in protein, and 140,000 in fat. Yet this 150-pound human being fortified by extra calories at breakfast must have a coffee break two or three hours later or get the vapours.

Why? The answer, as all readers of Adele Davis know, is low blood sugar. You, me, and Mr. and Mrs. George Spelvin down the street all have low blood sugar. It comes, if you read Miss Davis, from eating the wrong breakfast. Or, if you go along with veteran marathoner Aldo Scandurra, from eating breakfast at all.

"When I get up the day of the Boston Marathon," Scandurra once told me, "I don't eat at all. I take a large glass of hot water, have a bowel movement, and I'm ready for that race at noon." And what about energy for that long 26 miles? "I have enough already stored up," he replied, "There's no sense upsetting my system with more."

Scandurra is physiologically correct. In the fasting person the blood sugar stays in a straight line well within the normal range. Only after a meal does it rise thereby calling for an outpouring of insulin, a hormone of energy storage. And when the insulin accomplishes this task the sugar level drops and we usually know it. How? Well you feel as if you need a coffee break. More specifically, that could range from fatigue and yawning and actual drowsiness on one side of the coin, or a feeling of jitteryness or a light sweat on the other.

The treatment, for those who haven't protected themselves with Miss Davis' high protein diet, is usually java and a Danish. Other therapies include all those quick-energy foods and candies and drinks we see advertised in the press and on TV. The effect is almost immediate. Zing goes the blood sugar back up and even past normal. This again calls on the insulin to deposit the extra calories. And thus we go on and on depositing high octane fuel in an already full tank. Depositing fat on top of fat. When all we had to do was call on the energy we already had stored for use.

Can this be done? Can low blood sugar be cured without diet or treated without jelly sandwiches, candy bars, and fruit juice. Can we raise our blood sugar any time we want to? Why not? Children and athletes do. What do grammar school students do at 10:30 in the morning when they get the same feeling that sends grown men and housewives to the snack bar and the kitchen? They have recess. They get out and raise a sweat and in the process elevate their blood sugar. They come back to the classroom renewed and intelligent; becoming more docile, more teachable—a transformation and a physiological one. And what of the athlete?

He too has the same meal. He has been advised to have a relatively high carbohydrate meal before his event. If nothing else, it is more easily digested. Then he waits the two to three hours. Insulin, the hormone of energy storage, is doing its work. His blood sugar starts down. He begins to yawn (spectators mistakenly marvel at how casually he seems to be taking the race) or gets into a light clammy perspiration. Does he then look around for food, something to raise his blood sugar? Of course not. He knows he is now ready to release this power he has crammed into his muscles and liver. That is what these feelings

*Reprinted from *The Daily Register*, Red Bank, New Jersey, March 8, 1972.

mean to an athlete. So he does the only appropriate thing, the natural thing for the human animal to do. He goes into physical action. That action, for reasons we did not know until recently, has to be intense enough to cause sweating and prolonged enough to call on what Walter Cannon described as that "miraculous refreshment and renewal of vigor," the second wind.

We now read that there is a good scientific reason for all of this. That the pancreas which produces insulin, a hormone of energy storage, also produces glucagon† a hormone of energy release. Further that when the athlete exercises, he stimulates the production of glucagon. With the result that all the fuel he has stashed away in the last meal, and the past week, and the past year, if necessary, begins to pour out into the blood and, *voila,* the blood sugar rises.

There is a time, as the Bible says, for everything. There is a time for low blood sugar. There is a time for high blood sugar. There is a time for insulin. There is a time for glucagon. They are part of the design of the universe. A design, as Bucky Fuller says, planned before all time by a supreme intelligence.

Adele Davis is partly right. Man was not made to live by refined sugars—only partly. Man was born to be active. Insulin exists to store energy needed for that activity. And glucagon exists to release it. But only the child and the athlete, who is the child grown, knew that. Nature does not give up her secrets easily. And hardly ever to guys who take coffee breaks.

†Unger, Roger; *New England Journal of Medicine,* 285:448 (August) 1971.

The Acceptability of Suicide

Although suicide is taboo in American society, some people have latent attitudes of acceptance toward it. Thus, Michael L. Connell, M.D., former Assistant Professor of Psychiatry at Tulane University, reported on research supported by HEW's National Institute of Mental Health. The study was one of the first attempts to develop a technic to measure the "suicidality" of a non-clinical population.

Dr. Connell surveyed 50 randomly-selected college undergraduates, 50 physicians, and 50 college alumni, all living in the same area. The physicians were surveyed because they are "gatekeepers and helpers" for potential suicides, and because they themselves represent a high-risk group. The alumni formed a comparison group.

To the question, "A person has a right to take his own life—true or false?" 60 per cent of the undergraduates answered "true," 58 per cent of the physicians answered "false," and 64 per cent of the alumni answered "false."

The circumstances under which suicide was considered understandable varied among the three groups. If the act was harmful to others, students tended to modify their view that suicide was a right. When the physicians felt suicide might be justifiable, it was in circumstances of hopeless, prolonged illness, social isolation, and great suffering. The alumni indicated fewer circumstances under which suicide could be considered justified, and were more against it on moral or ethical grounds. One of the strongest deterrents to suicide is religious belief.

Dr. Connell found that more than half the total sample of this educated population had personally considered suicide at one time or another, and suggested that suicide may be growing less unacceptable socially. If so, he hypothesizes that an increase in suicide rates in the coming years may be expected.

NEW JERSEY DOCTORS' NOTEBOOK

Special Session House of Delegates

Two hundred eighty-four delegates from the twenty-one county societies and sixteen fellows and officers of MSNJ participated in the special session of the House of Delegates held on December 10, 1972 in Trenton. The session was called in consequence of adoption of Resolution #26 (Union County) by the House of Delegates at the 206th Annual Meeting last May. That resolution empowered the Council on Public Relations "to conduct a survey, which shall include open hearings in each of the five judicial districts, to ascertain from the members their thinking on the subjects of: (1) formation of a medical union; (2) implementation of an articulate, aggressive public relations program; (3) the function of JEMPAC; and (4) other pertinent subjects for the benefit of members of MSNJ . . . and report its findings to a special session of the House of Delegates in the fall of 1972."

Hearings were held, with the following percentages of members of the five districts in attendance: first—2.4; second—0.9; third—1.5; fourth—2.0, and fifth—4.0. The over-all average was 2.16 per cent. Survey ballots were mailed on October 16 to 8,226 members; 2,609 were returned, for a percentage of 31.7.

Significant results of the ballot, in summary, were as follows: 1,696 indicated their interest in the establishment of a union or guild for purposes of negotiations; 1,700 indicated approval of the establishment of a foundation; 795 indicated approval of the establishment of HMO's, but 1,533 voted to disapprove such establishment; 1,089 approved the prompt establishment of an articulate and aggressive public relations program, supported by an annual budget of up to $15 per capita.

President William J. D'Elia, M.D., gaveled the session to order precisely at 11 a.m. The invocation was delivered by Reverend Watson E. Neiman, M.D. After some brief remarks with reference to the hearings and the survey, the President turned over the meeting to Henry J. Mineur, M.D., Speaker of the House, and Edward Foord, M.D., Vice-Speaker.

Discussion for the first two hours centered about a resolution distributed by a delegate from Union County which read:

"Resolved that The Medical Society of New Jersey cooperate in the formation of a physicians' guild."

Finally, by a standing vote the House rejected the measure—167 to 108.

The House next turned its attention to consideration of a resolution submitted by the Core Committee on the Foundation Approach to Medical Care. The resolveds, as amended from the floor, read as follows:

That The Medical Society of New Jersey proceed with all deliberate speed to establish, as a separate corporate entity, a New Jersey Foundation for Health Care Evaluation, to which all physicians licensed to practice in New Jersey may belong and in which membership is voluntary;

That as soon as the Foundation is organized it shall begin negotiations with the Secretary of HEW for recognition as the Professional Standards Review Organization for the State of New Jersey; and

That as a requirement for consideration of problems all insurance carriers and third parties be obligated to accept the rulings of this Foundation in reference to decisions on health care evaluation and usual and customary fees for service.

The amended resolution was adopted by voice vote.

A resolution from Essex County, which recommended establishment of a membership inquiry and complaint mechanism, was considered next. The resolution was amended from the floor and was adopted by voice vote. The new mechanism is being established to deal more effectively with third party insurance carriers and government medical programs as they affect the practices of our mem-

bers. Four specific committees of the Society are called for to meet directly with representatives of Medicare, Medicaid, Blue Shield, and other health insurance carriers. These four committees will be composed of at least one member from each judicial district. A report form was adopted, as an attachment to the resolution, and will be used in the future by the members for the submission of their complaints.

As a final action, the House voted to adopt the following resolution offered by the Chairman of the Council on Public Relations, Howard D. Slobodien, M.D.:

Resolved that the Council on Public Relations develop promptly an articulate, aggressive public relations program to be supported by an annual budget of up to $15 per capita.

The session was adjourned at 3:15 p.m.

Trustees' Minutes

November 19, 1972

A regular meeting of the Board of Trustees was held on November 19, 1972, at the Executive Offices in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of significant actions follows:

Luke A. Mulligan, M.D. . . . Observed a moment of silent prayer in tribute to the memory of Dr. Luke A. Mulligan, who died on October 26, 1972.

. . . Adopted the following memorial resolution and authorized a $50 contribution to the Medical Student Loan Fund in memory of Dr. Mulligan:

LUKE ALOYSIUS MULLIGAN, M.D.
1902-1972

Whereas, Almighty God has summoned from our midst his good servant and our beloved colleague, Luke Aloysius Mulligan, M.D.; and

Whereas, as member and Chairman of the Board of Trustees of The Medical Society of New Jersey, member of numerous committees, Chairman of the Committee on Medical Student Loan Fund and of the Committee on Medicine and Religion, and Delegate to the American Medical Association, Doctor Mulligan rendered uniformly high and valuable service to The Medical Society of New Jersey and the people of our State; and

Whereas, his generous spirit led him to give further of himself as member and President of the State Board of Medical Examiners and member of the State Hospital Advisory Council; and

Whereas, by his industry, understanding, dependability, and kindness he won the affectionate esteem of all who knew him; now therefore be it

RESOLVED, that The Medical Society of New Jersey, honoring Luke Aloysius Mulligan, M.D., in death as in life, records its profound grief at his passing; and be it further

RESOLVED, that a copy of this resolution be spread upon the minutes of this meeting and that another copy, suitably prepared, be presented to his bereaved widow in token of heartfelt sympathy.

AMA National Leadership Conference . . . Empowered the President to name four representatives to attend (with expenses paid) the AMA National Leadership Conference, February 16 to 18 in Chicago.

Voluntary Blood Donations . . . Approved the following recommendation from the Council on Public Relations:

That the encouragement of increased voluntary blood donations as a continuing project, without the use of paid advertisements, be approved.

Radio Broadcasts Under Auspices of Component Medical Societies . . . Approved the following recommendation from the Council on Public Relations:

That the Board of Trustees approve the initiation of a taped radio broadcast program, and, if necessary allocate necessary additional funds to support the Council's budget.

Golden Merit Award Ceremony . . . Approved a recommendation (as amended by the Board) from the Annual Meeting Committee that the GMA ceremony be scheduled Sunday, May 13, 1973, as part of the General

Session; that the awards be made following the addresses of the President and President-Elect, which will be presented at the conclusion of the Election session of the House of Delegates; and that immediately following the bestowal of these awards a reception be held for the recipients and their families.

Annual Meeting Daily Schedule . . . Approved the proposed daily schedule of the 207th Annual Meeting of The Medical Society of New Jersey (see page 1053, December 1972 issue and page 72, this issue).

Section on Physical Medicine and Rehabilitation . . . Approved the following recommendation from the Annual Meeting Committee which had been requested by the Chairman of MSNJ's Section on Rheumatism and the New Jersey Society of Physical Medicine and Rehabilitation:

That a Section on Physical Medicine and Rehabilitation be established within the framework of MSNJ's scientific sections, and that a chairman and a secretary be elected to serve beginning with the 1974 Annual Meeting.

Professional Convention Management Association . . . Authorized the Convention Manager to attend (with expenses paid) the 1973 Joint Conference on Medical Conventions, to be held in Hollywood, Florida, January 3 to 6, 1973.

Society-Sponsored Automobile Insurance . . . Approved the following recommendation from the Committee on Medical Defense and Insurance:

That the Board of Trustees approve the establishment of a Society-sponsored Automobile Insurance Program to be offered to members of MSNJ through the E. & W. Blanksteen Agency, Inc. and underwritten by an affiliate of the Aetna Life & Casualty Insurance Company.

Loss Control Program—Surcharge Program . . . Approved the following changes recommended by the Committee on Medical Defense and Insurance:

1. That the carriers may settle claims of established liability under the Loss Control Program having a value of $3,500 or less without submission of such claims to a medical review and advisory committee review provided the consent of the defendant is first obtained.

2. That a "non-defensible" claim shall not be considered for surcharge consideration if its value is $3,500 or less.

Peer Review . . . Approved the "Guidelines for Peer Review Procedures" (see below) and forms for "Peer Review Committee Information" and the "Report of Reviewing Physician" as recommended by the State Peer Review Committee.

GUIDELINES FOR PEER REVIEW PROCEDURES

State Peer Review Procedure

The State Peer Review Committee shall have as its primary responsibility the drafting of guidelines for local peer review committees. Also, the State Peer Review Committee will have responsibility for over-all supervision of all aspects of peer review in the State, exclusive of the judicial mechanism. The State Peer Review Committee is concerned initially with hospitals, extended care facilities, and nursing homes. In a later phase, the entire program should embark on peer review of ambulatory care.

Local (county) Peer Review Committees

Local peer review committees shall be formed by each county medical society. If the smaller societies so desire, they may join with neighboring county medical societies of the same judicial district to form a local peer review committee.

Larger counties may find it necessary to form more than one local peer review committee. Local peer review committees shall consist of at least five members with any number of non-voting consultants. It shall be the function of the local peer review committee to supervise and advise hospital, extended care facility, and nursing home peer review committees.

No more than one member of a given institutional peer review committee shall hold membership on the local peer review committee. Where there are several hospitals in the county, it is conceivable that the local peer review committee could consist of (for instance) the chairmen of the various hospital peer review committees.

Purpose

Peer Review is an educational, not a punitive, process designated to improve practice patterns through the education of physicians. The mechanism shall recognize both the rights of the physician and the right of the purchaser of medical care to reasonable value for monies expended.

Since the functions of all peer review committees are to study and evaluate quantity, quality, and costs of medical care, and since at present we are concerned mainly with hospital patients, the State Peer Review Committee feels that all hospitals should develop and publicize their own standards and patterns of care for various diagnoses. The methodology by which review is accomplished will vary from one hospital to another. In every instance, however, the review should be a fact-finding analysis and also educational in nature. In order to perform an effective analysis of quality of care and utilization of services, some criteria must be established by the medical staff. In developing cri-

teria, assistance may be obtained from outside agencies and facilities that process medical record data for hospitals and compile statistics and comparative analyses. Once established, these criteria should be used to make comparisons and formulate recommendations to assure quality care and utilization. The adopted criteria should be made available to all medical society peer review committees.

Acceptance of Cases

No individual or agency shall be excluded from initiating a peer review process except by determination of the local peer review committee that the matter is proper to the judicial mechanism because the primary cause for the claim is excessive fees.

Since the peer review committee has no punitive powers, it must seek to get the cooperation of the physicians involved in the matter of accepting adjusted fees. If the cooperation is not forthcoming, then the local peer review committee should discharge itself of the processing of the matter and refer it to the county judicial committee.

Cases Excluded from Review

If outright fraud is alleged, or the possibility of fraud uncovered, the peer review mechanism shall not investigate or attempt to make a decision because:

1. Carriers and governmental agencies have investigatory personnel to pursue such investigations, and medical societies do not have such personnel.

2. The matter most probably will go to court and the peer review mechanism should not, and does not attempt to, pre-empt the function of the courts.

3. Adequate laws concerning fraud exist in state and federal statutes and are written into government-funded health care programs.

Appeal Mechanism

Within 45 days of the formal announcement of its decision by the local peer review committee, an appeal from the uttered decision may be made in writing to the State Peer Review Committee.

Summarization of Activities and Findings

In addition to the functions and operations previously discussed, each local peer review committee should note the patterns of care evolving within its specific area, particularly the weaknesses and quality of the delivery of health care that are evidenced. Specific recommendations should be made to the institutions involved. These areas should be closely observed as should the remedial actions which are undertaken so that empirical data of the effectiveness of the peer review system as an appropriate mechanism for improving the delivery of health care and its role as an educational tool can be properly evaluated. The local peer review committee should file a report on these observations every six months with the State Peer Review Committee.

The State Peer Review Committee shall review and collate the various materials forwarded to it. Problem areas not merely local in nature shall be specifically noted and brought to the attention of all local peer review committees. Matters which are purely local in nature shall be brought to the attention of the proper local peer review committee with recommendations for corrective measures.

Confidentiality shall be maintained throughout the peer review mechanism. Records will be made available only to:

1. Review committee members
2. Consultants to peer review committees
3. Executive personnel directly involved with the peer review administration
4. Individuals reviewed and third party payers
5. Legal advisors
6. Others authorized by the State Review Committee

Foundation Medical Care . . . Accepted with commendation the report of the Core Committee on the Foundation Approach to Medical Care, whose consensus was that MSNJ should establish such a foundation.

. . . Directed that a resolution from the Core Committee, which calls upon MSNJ to proceed with the establishment, as a separate corporate entity, of a New Jersey Foundation for Health Care Evaluation, be referred to the Special Session of the House of Delegates on December 10. (See page 61, this issue)

Board of Medical Examiners' Administrative Regulations . . . Directed that Legal Counsel prepare and present to the Secretary of the Board of Medical Examiners critical comments on the Board of Medical Examiners' "Proposed Rules on General Administrative Regulations," expressing the official reaction of the Board of Trustees of MSNJ.

. . . Authorized the Secretary of MSNJ to add to the communication to the Board of Medical Examiners further observations that would reflect the thinking of the members of the Board of Trustees as licensed physicians.

Hospital Research and Educational Trust of New Jersey (HRET) . . . Endorsed the application of the Hospital Research and Educational Trust of New Jersey for a research and development grant from the federal government for a cooperative federal-state-local health statistics system for New Jersey, and directed that HRET be so informed.

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☐ Pyopen (disodium carbenicillin) vials for injection equivalent to 1 gm. and 5 gm. of carbenicillin.
☐ Bactocill (sodium oxacillin) capsules equivalent to 250 mg. and 500 mg. oxacillin and vials for injection equivalent to 500 mg. and 1 gm. oxacillin.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Division of Laboratories and Epidemiology during November 1972:

	1972 November	1971 November
Aseptic meningitis	71	7
Primary encephalitis	6	
Hepatitis: Total	286	344
Infectious	220	254
Serum	66	90
Malaria: Total	0	9
Military	0	9
Civilian	0	0
Meningococcal meningitis	2	2
Mumps	221	83
German measles	17	38
Measles	1	58
Salmonella	98	65
Shigella	40	47

Syphilis

After a seven-month decline (December 1971 through June 1972) the incidence of infectious syphilis has again begun to rise. Epidemiologic control efforts are being enhanced with the recent addition of eleven new field representatives. Prompt reporting of all cases of syphilis is imperative in epidemiologic control efforts. Case reports may be made either by standard report forms or by calling (609) 392-2020. In addition, any physician may obtain dark field services at any time of the day or night by calling (609) 392-2020.

The following is a quick reference summary for the treatment of syphilis.

Disease	Drug	Administration and Dosage
SYPHILIS (primary, secondary and latent with nonreactive spinal fluid)	Benzathine Penicillin G	2,400,000 units intramuscularly at a single session.
SYPHILIS (early latent and late latent if no examination of spinal fluid is made)	Benzathine Penicillin G	6,000,000 units total, divided evenly in two sessions seven days apart.
LATE SYPHILIS (cardiovascular, late benign, and neurosyphilis)	Benzathine Penicillin G	6,000,000 to 9,000,000 units given 3,000,000 units per session at seven-day intervals.
CONGENITAL SYPHILIS (Under 2 years' duration)	Aqueous Procaine Penicillin G	50,000 units per lb. body weight, 10 equally divided daily injections.
CONGENITAL SYPHILIS (over 2 years' duration nonreactive spinal fluid) (if spinal fluid reactive, treat as neurosyphilis)	Benzathine Penicillin G	2,400,000 units intramuscularly at a single session. Should be adjusted for age and body weight.

Patients Allergic to Penicillin

Syphilis patients known to be sensitive to penicillin may be treated with tetracyclines 0.5 grams orally four times a day for 15 days (30 gms.). Late syphilis should be treated with 0.5 grams four times a day for a minimum of 20 days (40 gms.). In pregnant patients, erythromycin should be used instead of tetracyclines. The dosage and schedule for erythromycin is the same as for tetracyclines. As these preparations lack the proven efficacy of penicillin for syphilis and are comparatively expensive, their use should be reserved for patients for whom penicillin is contraindicated.

PATRONIZE OUR ADVERTISERS

Governmental Health Care Programs and the Physician

James E. D. Gardam, M.D., Medical Director
Government Health Programs
Prudential Insurance Company

With this issue of *The Journal* begins a series of articles concerning various aspects of governmental health programs and their relations with New Jersey physicians. It is anticipated that this series of reviews will assist both the physician and the administrators of the programs in solving or ameliorating common problems.

Some basic facts are important. The Prudential Insurance Company of America is designated as a *carrier* under Title XIX of the amendments to the Social Security Act, 1965 (Medicare) for reimbursement of beneficiaries or their physicians under Part B in the states of New Jersey, North Carolina, and Georgia. Under Part A of Medicare New Jersey, Prudential, and Blue Cross serve as *fiscal intermediaries* for reimbursement of health care providers (hospitals, hospital-based physicians, extended care facilities, nursing homes, home health service organizations, and providers of durable medical equipment and ambulance services), and reimburses podiatrists, opticians, and dentists under certain provisions of the law. Prudential further is the *contractor* for reimbursement for services to recipients under Title XIX (Medicaid) in New Jersey.

Basic philosophy underlying the administration of all five governmental health programs under the direction of federal and state regulations is to provide prompt service to claims, to insure the highest quality of medical care for each patient, to provide ready access to appropriate medical service by the elimination of financial barriers, to control the costs of medical care, to monitor over-utilization, and to furnish prompt and accurate reimbursement to providers.

The operation of the various programs is complex and large scale. Medicare payments in 1972 amounted to $1.7 billion. Medicaid disbursements were $712.8 million. In the three states administered by Prudential, reimbursements were made to 16,957 physicians for Medicare services. In New Jersey, Prudential services 34 hospitals, 34 home health agencies, and 73 extended care facilities under Part A of Medicare. Prudential services 5.7 million claims annually at a unit cost of just under three dollars.

Without prior experience in the field of governmental health programs but utilizing almost 100 years of expertise in handling claims, Prudential has successfully developed or implemented reimbursement procedures for five health programs. The programs involve the development and maintenance of physician profiles including services, procedures, fees, prevailing fee schedules, utilization review programs, and so forth. Prudential has been a leader and (along with other intermediaries and contractors) aims to continue to lead in the maintenance of program integrity and prompt and complete servicing of claims and reimbursement of beneficiaries, recipients, and providers. This represents a substantial undertaking. The social and economic impact of governmental health programs may not be underestimated nor will it diminish. All efforts to make the system operate smoothly and efficiently will reflect credit upon the carrier but more importantly will ensure the achievement of the objectives of the programs—good patient care.

Future articles will define common problems occurring at the physician-carrier-patient interface and, hopefully, provide guidelines to insure efficient operation.

207th Annual Meeting
May 12-15, 1973
Chalfonte-Haddon Hall
Atlantic City

Medical College Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The last quarter of 1971, for the College of Medicine and Dentistry of New Jersey, was eventful. Progress was made in many areas:

. . . The new Institute of Mental Health Sciences was dedicated in October at the University Heights Campus in Piscataway. This facility aims to provide comprehensive care with emphasis on preventing mental health problems before they occur. The Institute includes a broad teaching program for students of nursing, social work, medicine, psychiatry, psychology, and education.

. . . A collection of 7,000 rare books is on display at the library of the College of Medicine and Dentistry of New Jersey—New Jersey Medical School (NJMS) as a result of the merger with the Library of the Academy of Medicine of New Jersey. In total, the collection adds tens of thousands of journals, periodicals, and books to the medical school's library.

. . . Dr. Carroll M. Leevy, professor of medicine and head of the division of hepatology and nutrition at NJMS announced that researchers working in his laboratory have learned to identify persons with liver damage whose sensitivity to alcoholic beverages could lead to cirrhosis. Their studies indicated that alcohol in the presence of damaged liver causes a delayed hypersensitivity which results in destruction of liver cells. Details of the study were presented in 1971 at the World Congress on Nutrition in Mexico City.

. . . The department of medicine at Rutgers Medical School, in conjunction with affiliated area community hospitals, has a Graduate Program in Internal Medicine for interns and residents wishing to specialize in this area. The program includes one year of internship followed by three years of residency. The department is now accepting applications for the academic year beginning July 1, 1973.

. . . Twenty-one physicians educated in medical schools abroad have begun a nine-month clinical training program (known as "Fifth Channel") to help them to qualify for internships and license in New Jersey. The program is designed to assist our state in meeting its physician shortage. Headquartered at RMS the program was created through the joint efforts of Governor Cahill, CMDNJ, the State Board of Medical Examiners, legislators, and concerned citizens.

. . . Fourteen faculty members at CMDNJ were inducted as fellows into the American College of Surgeons at the organization's Clinical Congress in San Francisco. Included were four from RMS and ten from NJMS.

. . . Edward A. Wolfson, M.D., M.P.H., was appointed associate dean for health care at NJMS. Dr. Wolfson is now responsible for all medical and health care at Martland Hospital, the medical school's primary teaching hospital.

. . . A team of researchers under the leadership of Theodore Kushnick, M.D., professor of pediatrics at NJMS, revealed that chromosome damage in adults could result from narcotic addiction combined with other "environmental factors" such as serum hepatitis. The study revealed that damage was not transmitted from mother to offspring. The study, "Narcotic Addicts and Their Newborn," appeared in the September 1972 issue of this *Journal*.

. . . A new and effective treatment for anaerobic pneumonia, was found by researchers at NJMS. Purnendo Sen, M.D., a fellow in the infectious disease division at our College, headed the research team which discovered that clindamycin effectively checked this form of pneumonia, which in the past has been very difficult to treat.

The year 1972 was one of steady progress in the growth of our College. Our trustees, faculty, administration, and students are grateful to the members of The Medical Society of New Jersey for their encouragement and support.

Proposed Amendment to MSNJ Constitution

The following proposed amendment to Article IV—Organization of the Society, Section 1—Composition, of the Constitution of The Medical Society of New Jersey, which was approved by the 1972 House of Delegates and published in the July 1972 issue of *The Journal,* page Tr 53, is here reprinted (in compliance with Article 12, Section B (10)—Procedure for Second Year) for the information of the membership. A copy of the proposed amendment, with a covering memorandum, was mailed to each component society under date of January 3, 1973:

Article IV—Organization of the Society
Section 1—Composition

Current	*Proposed*
This Society shall be composed of Fellows, Officers, Delegates, members, and associate members of component societies in good standing and Emeritus Members. Honorary Members may be elected, but they shall not be members of the corporate body.	Same *Affiliate Membership may be granted but recipients may neither vote nor hold office.*

Section 8—Affiliate Members

Affiliate Members shall be physicians who have been active members for at least five consecutive years but who no longer practice in New Jersey. Applications for Affiliate Membership shall be directed through the component medical society, to the Standing Committee on Medical Defense and Insurance of The Medical Society of New Jersey for consideration and action. Affiliate Members shall be eligible to continue all insurance coverages offered by the Society except those relating to professional liability. The dues for Affiliate Members shall be established by the House of Delegates on recommendation of the Committee on Finance and Budget.

New Chiropractic Benefits

Inclusion of chiropractic benefits, for the first time in a federal program, was a setback to the medical profession, the Administration, and other anti-chiropractic forces. However, the modification of the chiropractic benefit language in conference may make it practically unworkable. As passed by the Senate, chiropractic benefits were limited to manual manipulation of the spine. In conference, this was modified to require that benefits would be covered only after an x-ray revealed subluxation. Apparently the x-ray may not be interpreted by a chiropractor.

Senator Edward Kennedy attempted by an amendment from the floor to strike the chiropractic provision, but it was soundly defeated by a vote of 66 to 6. Subsequently, the Massachusetts Senator admonished the AMA for not supporting his amendment. However laudable his effort, Senator Kennedy—an experienced parliamentarian—should have recognized that his attempt to strike the chiropractic provision had no chance of success. His amendment to HR-1 was unprinted; he introduced it from the Senate floor; and he proceeded without the cooperation of the bill's floor manager. That his approach was ill-advised from the standpoint of effective parliamentary procedure is evidenced by the amendment's lopsided defeat.

Prior to the introduction of his amendment, the Senator's staff was counseled by anti-chiropractic forces, including the AMA, that he did not have the votes. Further, it was pointed out that an overwhelming defeat of his amendment by a recorded vote would seriously hamper the Senate conferees in their efforts to bargain with members of the House in joint conference.

On several occasions in the past, the Senate Finance Committee has added a similar chiropractic provision to a pending measure. But in each of these cases the Senate conferees later agreed to its deletion in joint conference with the House.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY—Myung S. Lee, M.D., 35-44 28th Street, Astoria, New York 11106. Ewha University (Korea) 1964. Board eligible. Group or solo. Available January 1973.

FAMILY PRACTICE—Suresh C. Doshi, M.D., Box 212, Oceana Medical Center, Oceana, West Virginia 24870. Bombay (India) 1961. Partnership or other. Available July 1973.

GENERAL MEDICINE (INDUSTRIAL)—James C. Mitchell, M.D., Millside Manor, #1-E, Delran, New Jersey 08075. Medical College of South Carolina 1961. Board eligible. Subspecialty, urology. Prefer work in industry in South Jersey. Available January 1973.

Robert S. Stone, M.D., 4 Barker Drive, Stony Brook, New York 11790. Einstein, 1959. Special interest, trauma. Solo or Hospital Emergency Room. Available.

INTERNAL MEDICINE—Alfred M. Derrow, M.D., 16 Crawford Drive, Dix Hills, New York 11746. Tufts 1962. Subspecialty, nephrology. Board certified. Group or partnership. Available early 1973.

David S. Lerman, M.D., 207 Oak Street, Danville, Pennsylvania 17821. Hahnemann 1968. Board eligible. Group or partnership. Available July 1973.

Ronald E. Grossman, M.D., 1212 Pine Avenue West, Apt. 801, Montreal 112, Quebec, Canada. Manila 1966. Board certified. Subspecialty, allergy. Group, partnership, or solo. Available July 1973.

David J. Meltz, M.D., 203 Valley Road, Middletown, Rhode Island 02840. NYU 1968. Board certified. Group or partnership. Available July 1973.

James J. Mertz, M.D., 1180 Beacon Street, Brookline, Massachusetts 02146. Harvard 1961. Board eligible. Group or partnership. Available Spring 1973.

NEUROLOGY—Richard M. Sax, M.D., 3541 East Glencoe Street, Coconut Grove, Florida 33133. Louisville. 1968. Board eligible. Group or partnership. Available 1973.

Robert H. Friedman, M.D., 1249 Park Avenue, Apt. 17-B, New York, New York 10029. Jefferson 1969. Board eligible. Group, partnership, associate, or solo. Available July 1973.

Manuel A. Cacdac, M.D., Department of Neurosurgery, Naval Hospital Boston, Chelsea, Massachusetts 02150. St. Tomas, Philippines 1962. Board eligible. Solo, group, partnership, or teaching. Available June 1973.

K. R. Shetty, M.D., U.S. Naval Hospital, Philadelphia, Pennsylvania 19145. India 1964. Board eligible. Subspecialty, pediatric neurology. Solo or partnership. Available June 1973.

OBSTETRICS-GYNECOLOGY—Sangkyu Shin, M.D., 2502 Alter Road, Detroit, Michigan 48215. Yonsei (Korea) 1965. Group or associate. Available July 1973.

Mircea Veleanu, M.D., 9111 Church Avenue, Apt. 4-L, Brooklyn, New York 11236. Hadassah (Israel) 1964. Board eligible. Group or partnership. Available July 1973.

Arthur Howard, M.D., 6729 Doolittle Drive, Edwards AFB, California 93523. Hanemann 1967. Board eligible. Partnership. Available July 1973.

OPHTHALMOLOGY—Robert Heidenry, M.D., Route 6, Box 198-4, Port Orchard, Washington 0866. St. Louis 1967. Group or partnership. Available July 1973.

M. B. Kayani, M.D., 2110 Westbury Court, Brooklyn, New York 11225. King Edward (Pakistan) 1967. Board eligible. Group, partnership, or association. Available July 1973.

ORTHOPEDICS—Yeshawant V. Ginde, M.D., 149 Nighbert Avenue, Logan, West Virginia 25601. Bombay (India) 1961. Board eligible. Group, partnership, or hospital. Available January 1973.

Larry Katz, M.D., 244 Fieldston Terrace, Apt. 4-L, Bronx, New York 10471. Temple 1968. Board eligible. Solo, partnership, or group. Available July 1973.

Surrender M. Grover, M.D., 89 Park Avenue, Newark 07104. MA Medical (India) 1966. Group, solo, or partnership. Available July 1973.

Ching-Jen Wang, M.D., 435 Hanover Avenue, Staten Island, New York 10304. Taiwan 1965. Board eligible. Partnership, group, solo. July 1973.

Jay B. Bosniak, M.D., 19 Hemphill Road, Eatontown, New Jersey 07724. Jefferson 1966. Board certified. Group, solo, or partnership — preferably Morris, Somerset, Bergen, or Monmouth Counties. Available July 1973.

Shin Young Kang, M.D., 10892 Pine Street, Taylor, Michigan 48180. Yonsei (Korea) 1963. Board eligible. Subspecialty, hand surgery. Solo or partnership. Available July 1973 or before.

PATHOLOGY—Horn Min, M.D., 35-44 28th Street, Astoria, New York 11106. Seoul University (Korea) 1961. Board certified. Group or partnership. Available January 1973.

Mark A. Cohan, M.D., 5407 Greenfield Drive South, Portsmouth, Virginia 23703. Western Reserve 1966. Board certified AP and CP. Group or associate. Available July 1973.

PEDIATRICS—K. Bhujanga Rao, M.D., 5501 North 11th Street, Apt. 404, Philadelphia, Pennsylvania 19141. DCH (India) 1961. Board eligible. Group. Available January 1973.

Vinnakota V. Rao, M.D., 10 Marshall Street, Irvington, New Jersey 07111. Guntur (India) 1967. Board

eligible. Group, partnership, or solo. Available July 1973.

PLASTIC AND RECONSTRUCTIVE SURGERY—M. R. Jayasanker, M.D., 800 Old Willow Road, Wheeling, Illinois 60090. Madras (India) 1962. Board eligible. Group or partnership. Available July 1973.

RADIOLOGY—Chen Fah Lian, M.D., Department of Diagnostic Radiology, Yale—New Haven Hospital, New Haven, Connecticut 06504. Cambridge 1965. Board eligible. Group or partnership. Available July 1973.

SURGERY—Mabini C. Piezas, M.D., 2401 Pennsylvania Avenue. Apt. 8-A-6, Philadelphia, Pennsylvania 19130. Southwestern (Philippines) 1964. Board eligible. Group or partnership. Available.

Ron Lapin, M.D., 950 49th Street, Brooklyn, New York 11219. Indiana 1968. Subspecialty, vascular surgery. Board eligible. Solo, partnership, or group. Available July 1973.

UROLOGY—Man Mohan Gursahani, M.D., 1427 Peacock Lane, Brentwood, Missouri 63144. India 1964. Board eligible. Group, partnership, or solo. Available July 1973.

PMA Offers Color Film

The Pharmaceutical Manufacturers Association has recently completed the production of a 28-minute color film that depicts the role of the pharmaceutical industry in today's health care system. Hollywood actors play the leading roles, with the central character, the ancient Greek physician, Galen, portrayed by Henry Jones. Galen is projected into a small town setting in the 20th century, where he reacts with warmth and subtle humor to the marvels of today's medical advances and "medicaments."

The film is suitable for schools, civic, fraternal, and church groups, public service television programing, and a variety of nonprofessional audiences.

It is available on a free rental basis from Modern Talking Picture Service, Inc., 2323 New Hyde Park Road, New Hyde Park, New York 11040. The film can also be purchased from the PMA at $100 for a 16-millimeter copy. Write to the PMA at 1155 15th Street, NW, Washington, D.C. 20005.

207th Annual Meeting
The Medical Society of New Jersey
May 12-15, 1973
Haddon Hall, Atlantic City

Daily Schedule

Friday, May 11, 1973

4:00 p.m. — Board of Trustees

Saturday, May 12, 1973

9:30 a.m. — Registration Opens
12:00 noon — Exhibits Open
2:00 p.m. — House of Delegates
2:00 p.m. — Motion Picture Theatre
3:00 p.m. — Reference Committees ("A", "B", "D", "G", and Const. and Bylaws)
5:00 p.m. — Nominating Committee
7:30 p.m. — Officers' Dinner (by invitation)
7:30 p.m. — Reception/Buffet/Dancing

Sunday, May 13, 1973

9:00 a.m. — Registration and Exhibits Open
9:30 a.m. — Scientific Sessions
10:00 a.m. — Motion Picture Theatre
10:00 a.m. — Reference Committees ("C", "E", "F", and "H")
1:00 p.m. — Scientific Sessions
2:00 p.m. — Motion Picture Theatre
3:30 p.m. — House of Delegates (election)
Addresses of President and President-Elect
4:30 p.m. — Golden Merit Award Ceremony
6:30 p.m. — Inaugural Reception
8:00 p.m. — Inaugural Dinner (by Invitation)

Monday, May 14, 1973

9:00 a.m. — Registration and Exhibits Open
All Day — Scientific Sessions
10:00 a.m. — Motion Picture Theatre
2:00 p.m. — Motion Picture Theatre
3:00 p.m. — House of Delegates
5:00 p.m. — Exhibits Close
8:00 p.m. — Annual Dinner—Dance

Tuesday, May 15, 1973

9:00 a.m. — Registration Opens
9:00 a.m. — House of Delegates
12:00 noon — Registration Closes
8:00 p.m. — Board of Trustees

ANNOUNCEMENTS

Clinical Application of Basic Sciences

The Burlington County Memorial Hospital offers the following programs for January and February, in its series on the clinical application of the basic sciences:

January 4	Portal Hypertension
January 11	Peptic Ulcer
January 18	Liver Injury
January 25	Myeloproliferative Disorders
February 1	Pregnancy Complicated by Diabetes
February 8	High Risk Pregnancy
February 15	Uterine Anomalies
February 22	Oral Contraceptive Agents

Lectures are supported by grants from Merck, Sharp, and Dohme, and the sessions convene promptly at 3:30 p.m. at the Summey Building across from the hospital. AAFP gives one and a half credits per lecture. Additional information may be obtained from the Department of Medical Education, Burlington County Memorial Hospital, Mount Holly.

Radiologic Seminars

Rutgers Medical School (CMDNJ) announces the following program in its series of seminars in radiology:

January 17	Vascular Aspects of Scleroderma William J. Casarella, M.D. Columbia-Presbyterian Medical Center
February 14	Data Acquisition Systems Mrs. Dorothea Aronson Milton Hershey Medical Center
March 14	Technics of Studying Strokes Ray Brinker, M.D. St. Vincent's Medical Center
April 18	Diagnosis of Renal Masses Howard M. Pollack, M.D. Episcopal Hospital
May 16	Head and Neck Cancer Patrick J. O'Kelley, M.D. St. Peter's General Hospital

Sessions convene at 5 p.m. in Link Room 203 at the Basic Science Building, Rutgers Medical School, New Brunswick—no fee. Further information may be obtained by writing to Charles P. diLiberti, M.D., Raritan Valley Hospital, 257 Greenbrook Road, Green Brook, New Jersey 08812.

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in a series on continuing education in psychiatry:

January 17	Proper Use of Antibiotics Dominic A. Mauriello, M.D.
February 1	Neurologic Syndromes in Psychiatry Eugene W. Loeser, M.D.
February 14	Medical-Surgical Emergencies in Psychiatry — Seymour Kuvin, M.D.
March 1	Adolescent Psychiatry — Adolescent Personality — Arnold M. Kallen, M.D.
March 14	Adolescent Psychiatry — Clinical Studies Arnold M. Kallen, M.D.
March 29	Adolescent Psychiatry — Management Arnold M. Kallen, M.D.

Sessions are held at the hospital, 19 Prospect Street, Summit, and convene promptly at 3 p.m. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education at the hospital.

Graduate Lectures in Surgery

Additional programs in the "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School (CMDNJ) have been listed as follows:

January 22	Primary Aldosteronism Richard H. Egdahl, M.D., Professor of Surgery Boston University Medical Center
February 5	Cancer of the Breast George P. Rosemond, M.D., Professor of Surgery Temple University Health Center
March 19	Acute Aspiratory Distress Watts R. Webb, M.D., Professor of Surgery SUNY, Upstate Medical Center

The lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking areas "M" at 12th and Bergen Streets. Other lectures will be announced in a later issue. For further information, write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital unit, CMDNJ. 65 Bergen Street, Newark 07107.

Pediatric Cardiology Seminar

Under the title of "Controversial Issues in Pediatric Cardiology" the University of Miami is sponsoring a colloquium at the Sonesta Beach Hotel in Key Biscayne, Florida. The seminar will be held March 19, 20, and 21, 1973. For details, write to the Division of Continuing Education, University of Miami School of Medicine, P.O. Box 875, Miami, Florida 33152.

Surgical Meetings in Persia and Russia

From May 3 to May 19, 1973 the Fifth International Congress of Ophthalmic, Otolaryngologic, and Plastic Surgery will be held in Russia and Persia. Included are meetings in and visits to Moscow, Leningrad, Teheran, Shiraz, Persopolis, and Isfahan. For details write to Ralph L. Dicker, M.D., 395 West Blackwell Street, Dover, New Jersey 07801.

MEETINGS OF MEDICAL INTEREST

This listing has been compiled by the Academy of Medicine of New Jersey. For additional information, including exact time of meetings, write to the society or hospital listed.

1973
January

10 **Academy of Medicine of New Jersey**
Princeton Medical Center
Princeton
Renal Failure

10 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Medical-Surgical Cardiology Conference

14 **Academy of Medicine of New Jersey Radiology Section**
St. Barnabas Medical Center
Livingston
Carcinoma of the Ovary

16 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Testicular Neoplasms

17 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Variants of Rheumatoid Arthritis

17 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Proper Use of Antibiotics

24 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Acupuncture

24 **Academy of Medicine of New Jersey**
Rod's 1920's Roadhouse
West Orange
Posterior Fossa Syndrome

25 **Academy of Medicine of New Jersey and Radiological Society of New Jersey**
Hospital Center at Orange
Interesting X-rays of the Month

29 **Academy of Medicine of New Jersey**
New Jersey State Hospital, Ancora
Hammonton
Congestive Heart Failure

31 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Proper Use of Antibiotics

31 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Idiopathic Thrombocytopenic Purpura

February

1 **Fair Oaks Hospital of New Jersey Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Neurologic Syndromes in Psychiatry

7 **Bergen Pines County Hospital**
Paramus
CPC Meeting

7 **Academy of Medicine of New Jersey**
Perth Amboy General Hospital
Perth Amboy
Non-operable Solid Tumors

8 **Academy of Medicine of New Jersey**
Helene Fuld Hospital
Trenton
Current Burn Treatment

14 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Diet and Diseases of the Colon

14 **Academy of Medicine of New Jersey**
Fair Oaks Hospital, Summit
Medical-Surgical Emergency in Psychiatric Practice

15 **Academy of Medicine of New Jersey**
St. Francis Hospital
Trenton
Respiratory Care

15 **Academy of Medicine of New Jersey and Englewood Hospital**
Englewood Hospital
Englewood
Interesting Chest X-rays

21 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Mechanisms of Antibiotic Activity

22 **Academy of Medicine of New Jersey and Radiological Society of New Jersey**
Hospital Center at Orange
Orange
Interesting X-rays of the Month

24 **Academy of Medicine of New Jersey**
Hunterdon Medical Center
Flemington
Endotoxic Shock

28 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Electrophysiologic Basis of Cardiac Arrhythmias

March

1 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

3 **St. Barnabas Medical Center**
Livingston
Post Anesthesiology Nursing

7 **Academy of Medicine of New Jersey**
St. Michael's Medical Center
Newark
Proper Use of Cardiovascular Drugs

8 **Academy of Medicine of New Jersey and Englewood Hospital**
Englewood Hospital
Englewood
Interesting Chest X-rays

13 **Academy of Medicine of New Jersey**
Bloomfield
Dermatologic Therapy

14 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

14 **Academy of Medicine of New Jersey**
Helene Fuld Hospital
Trenton
Proper Use of Antibiotics

20 **Academy of Medicine of New Jersey**
South Amboy Memorial Hospital
South Amboy
Hepatitis

21 **Academy of Medicine of New Jersey**
Hospital Center at Orange
Radiotherapy of Breast Carcinoma

22 **Academy of Medicine of New Jersey and Radiological Society of New Jersey**
Hospital Center at Orange
Interesting X-rays of the Month

26 **Academy of Medicine of New Jersey**
New Jersey State Hospital, Ancora
Hammonton
Difficult Diabetic Patients

27 **Academy of Medicine of New Jersey**
Warren Hospital
Phillipsburg
Medical-Legal Aspects in Surgery

28 **Academy of Medicine of New Jersey**
Perth Amboy Memorial Hospital
Perth Amboy
Differential Diagnosis of Jaundice

28 **Academy of Medicine of New Jersey**
New Jersey College of Medicine
Newark
Host Deficiencies

28 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Treatment of Shock

28 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

April

4 **Academy of Medicine of New Jersey**
Newark Beth Israel Medical Center
Newark
Modern Treatment of Cancer

11 **Academy of Medicine of New Jersey**
Rutgers Medical School
New Brunswick
Coronary Artery Surgery

11 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorder

26 **Academy of Medicine of New Jersey and the Radiological Society of New Jersey**
The Hospital Center at Orange
Interesting X-rays of the Month

26 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorders

30 **Academy of Medicine of New Jersey**
Ancora Psychiatric Hospital
Hammonton
Hypertension

May

12-15 **The Medical Society of New Jersey**
Haddon Hall, Atlantic City
Annual Meeting

13 **Academy of Medicine of New Jersey**
Princeton University
Princeton
Heavy Particles in Radiation Therapy

16 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Existential Psychiatry

23 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Diabetic Neuropathy

LETTER TO THE JOURNAL

Slaughter of the Unwanted

October 24, 1972

Dear Sir:

I would like to bring to the attention of your readers the following expression of opinion concerning the motion, passed by the Society's House of Delegates at the Annual Meeting this year, on abortion. I had hoped to express these views during the debate in the House but an early vote to end debate precluded my doing so.

Firstly, I am not going to quote any religious or moral principles, although I think it is noteworthy that the opposition to the present New York law is voiced by persons from all major religious groups. There are very real problems sometimes of saving the life of a mother, and there are very real problems of pregnancies following rape or incest, but this resolution and the scope of its intent went far beyond such problems.

The policy enunciated in this resolution is in direct contradiction of the purpose of our profession, of which we were reminded in the speech of our outgoing President at the meeting: saving and preserving life. The policy of this resolution is for wholesale slaughter of the unwanted. It does not even pretend to be directed against any of the specific real problems I referred to above. In fact, it is a policy arising from the failure of men and women of the professions of medicine, social science, and economics to study and solve the underlying actual problem of why the unwanted pregnancies, which this policy seeks to destroy, are unwanted. This policy of destruction of unwanted human life at one end of its time is, to put it very mildly, unworthy of physicians and leaves it but an easy step to a policy of destruction of unwanted human life at the other end of its time. Perhaps after approving this, physicians can go on to approving of disposal of unwanted elderly relatives on demand—perhaps even on the demand of the nursing home or extended care facility administrator or of the chairman of the utilization committee. That could be followed by a policy of the disposal of the aging generally, under a euphemism such as "mandatory permanent retirement at age 65." These suggestions are not just fictions or fantasies—Hitler carried out such policies, some of them with suitably euphemistic names, and some physicians played a part in those affairs, and Hitler's policies were, after all, solutions to particular problems just as the policy in this resolution would be a solution to a problem.

It has been argued that the fetus is not "human life" and is not "a person," and attempts to have the constitutional right to life applied to the fetus have met with little success in the courts. But I would remind Society members that, in a past barbaric age in our country, the U.S. Supreme Court refused to apply the same constitutional provisions to the black slave. That Court has since recognized the rights of black people; perhaps it will recognize the right of unborn people in a shorter time than it took to recognize that of black people.

This resolution should have been defeated and instead the House of Delegates should have urged its sponsors to promote, and should itself promote, the proper scientific study of the problem of the unwanted pregnancy and the search for a real solution to that real problem. That real solution will, instead of being analogous to the "final solution" of the gas-chamber or the "wastage" of My Lai, be worthy of men and women of the profession of medicine.

Philip J. G. Quigley, M.D.

Patronize Our Advertisers

OBITUARIES

Dr. Richard S. Battaglia

At the untimely age of 55, death came to Richard S. Battaglia, M.D., on November 13, 1972. Board certified in obstetrics and gynecology, he was senior attending in that specialty at the Elizabeth General Hospital. Dr. Battaglia was graduated in 1941 from the Medical School at Bologna. He was a Fellow of the American College of Surgeons and of the American College of Obstetricians and Gynecologists and was a member of the New Jersey Society of Surgeons. Dr. Battaglia was a member of the Union County Medical Society.

Dr. Barry C. Cody

One of Hudson County's senior practitioners, Barry C. Cody, M.D., died on November 11, 1972, at the age of 86. A general practitioner, he was a 1909 McGill graduate. For six years in the early decades of this century, he had been a physician for the U.S. Public Health Service. He was called on to assist in fighting the bubonic plague in New Orleans and in Peru. During World War I, he was with the New York National Guard. Following that duty, he was assigned to assist in controlling the influenza epidemic in Washington, D.C. and in New York City. In 1924, Dr. Cody opened a private practice in Bayonne and became city and school physician in that community. He was a 1959 laureate of our Golden Merit Award.

Dr. Kenneth E. Crater

At the age of only 57, Kenneth E. Crater, M.D., of Bloomfield, died on November 19, 1972. He was a Bellevue graduate, class of 1943. Dr. Crater was a general practitioner on the staff of the East Orange General Hospital. During World War II, he was a captain in the medical corps of the Army of the United States.

Dr. William B. Gellman

William B. Gellman, M.D., was born in Hungary in 1910 and died in New Jersey on November 17, 1972. He was a graduate of the German Medical University in Prague, class of 1936. He was on the surgical staffs of the Hasbrouck Heights Hospital and the Beth Israel Hospital in Passaic. Dr. Gellman had served the people of Wood Ridge for many years and had, indeed, been police and fire surgeon in that town.

Dr. A. Julius Gordon

Born in 1893, A. Julius Gordon, M.D., died on November 5, 1972, at the age of 79. He was a pioneer Essex County gynecologist who had been affiliated with the staffs at Martland, Presbyterian, and United Hospital in Newark. He was an alumnus of New York University's Medical College, class of 1915. A Fellow of the American College of Surgeons, he also belonged to the New Jersey Society of Surgeons and was a Fellow of the Academy of Medicine of New Jersey. Dr. Gordon was a 1965 recipient of the MSNJ Golden Merit Award.

Dr. Gabriel Llull

A well-known Union County family practitioner, Gabriel Llull, M.D., of Springfield, died on November 30, 1972. He had been born in Puerto Rico in 1904 and received his M.D. degree in 1933 from the Medical College of the University of Virginia. He was an associate surgeon at the Overlook Hospital in Summit and was police surgeon for the town of Springfield. Dr. Llull was a member of our Union County Medical Society and active in the local Policemen's Benevolent Association.

Dr. Maxwell Malament

Scheduled for publication in this *Journal* next month is a paper on cryosurgical prostatectomy by Maxwell Malament, M.D., who died suddenly on November 11, 1972.

Born in 1912, he was a 1938 alumnus of the University of Vienna's Medical School. For almost 20 years, he was Chief of Urology at the Veterans Administration Hospital in East Orange, and at the time of his death he was Clinical Professor of Urology at the College of Medicine and Dentistry of New Jersey. He was also Associate Clinical Professor of Urology at New York Medical College. Dr. Malament was a prolific writer in his chosen field, and had contributed over 100 papers to the urologic literature. His death occurred in an automobile accident following an acute myocardial infarction.

Dr. George F. Piltz

George F. Piltz, M.D., died on October 14, 1972 at the age of 71. He was graduated in 1930 from the Medical College of the University of Colorado, and after specialized training in cardiology, settled in Guttenberg. He was a member of our Hudson County Medical Society. Dr. Piltz retired from active practice in April 1971, at the age of 70. He had served on the staffs of the Pollak Hospital in Jersey City and the North Hudson Hospital in Weehawken.

Dr. Allison Hardee Roberts

A well-known Essex County family doctor, Allison Hardee Roberts, M.D., died on October 16, 1972. Born in Florida in 1906, he earned his M.D. in 1928 at the Jefferson Medical College. He stayed in Philadelphia for his internship and the following year crossed the Delaware to settle in Newark. Dr. Roberts was on the staff of United Hospitals of Newark and he was active in local affairs of the American Academy of Family Practice.

Dr. Julius H. Temes

A captain in the medical corps during World War II, Julius H. Temes, M.D., died on November 8, 1972, at the age of 73. He earned his M.D. at the University of Toronto in 1924 and before retirement he was a general practitioner in Jersey City. Dr. Temes was an active member of the Hudson County Medical Society.

Dr. Philip Willner

On November 20, 1972, Philip Willner, M.D., died at the age of 62. He was one of the best-known orthopedic surgeons in our state. He was board certified in his specialty and was a Fellow of the American Academy of Orthopedic Surgeons. He was graduated in 1935 from the Medical School of the University of Buffalo. Dr. Willner was chief of staff at the Orthopedic Center of United Hospitals (the Hospital for Crippled Children and Adults). He was also an attending in orthopedics at Saint Barnabas Medical Center in Livingston and the Beth Israel Hospital in Newark. Dr. Willner was Associate Clinical Professor of Orthopedics at the New Jersey College of Medicine and Dentistry, Newark.

The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 95, Belleville, New Jersey.

BOOK REVIEWS

On Dying and Denying: A Psychiatric Study of Terminality. Avery D. Weisman, M.D., New York, Behavioral Publications, 1972. Pp. 246. ($9.95)

Avery Weisman has pursued a taboo subject. At least the subject of death has been taboo to the medical profession in much the same fashion that sex was taboo to doctors when Freud's *Studies in Hysteria* was published in 1895. Hopefully, Dr. Weisman's book will sell better than 625 of 800 copies of Freud's *Studies* sold from 1895 to 1908. At a time when George Sand was "old hat" to the laity, Freud was censored by his medical colleagues for his discoveries regarding developmental sexuality. Freud's erstwhile friend Kraft-Ebing wrote in 1906, "Nothing is so prone to contaminate . . . the source of all noble and ideal sentiments . . . as the practice of masturbation in early years." Such was the learned hokum of the times. As the universality of infantile masturbation was denied by the profession in 1900, the inevitability of death tends to be denied by medical men today. Doctors are trained more to heal and save than to care for and soothe. Death is anathema to the art.

Dr. Weisman proceeds from four basic concepts: (a) the primary paradox, (b) the fear of dying and the fear of death, (c) talking about death, and (d) the hope and acceptance of death. "The primary paradox is that while man recognizes that death is universal, he cannot imagine his own death. . . . It is other people who die." He proceeds in orderly fashion to discuss the psychodynamic processes of awareness of potentially fatal situations from the first interplay of acceptance and denial where reasons for optimism and opportunities for denial transit in the progressive encounter with inexorable illness. Second order denial passes into second order acceptance until third order denial yields to acceptance and the sands run out.

More in keeping with the soothing art might be the comfort of dying in one's own bed with loved ones near than an expiration in intensive care with tracheal intubation, electronically induced heart beat, and curare to eliminate interference by voluntary movement. Here the existential analyst, Dr. Weisman, poses the option to die one's own death. Weisman states, "The true vision of existence when death is at hand is contained in a pre-emptive demand, 'Here I am, but what am I?'" One might add, "and doctor what are you contributing to my death?"

Ira S. Ross, M.D.

Introduction to Neuroscience. Edited by Jeff Minckler, M.D. St. Louis, Mosby, 1972. Pp. 420. Illustrated ($22.50)

The somewhat synthetic word *neuroscience* here refers to the integrated study of neuroanatomy, neurophysiology, radiology, and psychobiology. The latter material reviews the neurochemistry and physiologic conditioning which result in various aspects of behavior. The retail cost of $22.50 may seem a bit high, but the work is salted with more than 600 illustrations used to show tissue, chemical formulae, and tabulations. The first 140 pages of the book are devoted to gross and microscopic (even ultramicroscopic) anatomy. Embryology of the central nervous system is offered in considerable detail. The pharmacologic effect of psychoactive drugs is also reviewed. There is even a presentation of the underlying physiology of memory.

The text, as a whole, supplies the reader with a basic book on these essential underpinnings of neurophysiology and neuroanatomy. It is a beautiful volume, both in words and pictures. It is, further, a scholarly work, that will grace any physician's library. The clinical side of neurology is not much emphasized, but the volume is a good source book for any reader concerned with an indepth understanding of the central and peripheral nervous system.

Herbert S. Boehm, M.D.

Crime and Justice: American Style. Clarence Schrag, Ph.D. National Institute of Mental Health. Washington, D. C., U. S. Government Printing Office, 1972. Pp. 266. (Softback. $1)

Our present system of justice, Dr. Schrag suggests, is a significant factor in crime causation. Just how this comes about is the burden of this slim volume. The various (and often contradictory) explanations of criminal behavior are reviewed. The need is for societal reform not the correction of individuals. The hope is to revitalize the system by innovative changes which will have all categories of the law enforcement and crime control personnel better integrated. A model of a community correctional system is offered which concerns itself with training, job-finding, schooling, legal aid, various levels of correctional institutions, plus a spectrum of informal as well as formal judicial sanctions.

Abraham Leff, M.D.

Synopsis of Surgery, Edition 2. Richard D. Liechty, M.D. and Robert T. Soper, M.D. St. Louis, Mosby, 1972. Pp. 1108. Illustrations 669. ($15.50)

Here is a fine comprehensive outline of general surgery. It contains 43 chapters written either by the authors or by other experts in their surgical specialties. Several writers state that the textbooks written today will be designed for a particular audience (the student, either in school or 15 years out of school) or discuss specific topics in extensive detail. Mixing the two types of books and materials presents many problems. Although this book serves more for the student for study and examination, the authors see it as bridging the gap toward advanced reference books which discuss topics in detail.

Besides the routine review of surgical topics there are chapters on "total parenteral feeding," "the peritoneum and acute abdominal conditions," "gastrointestinal hemorrhage," "pediatric surgery," "geriatric surgery," "care of the acutely injured patient," "transplantation," and "the hand." Also good reviews are offered on thoracic and pulmonary surgery, the heart, and the peripheral arteries and veins. Each chapter is concise, but contains up-to-date useful information. References are given for each chapter at the end of the book. Illustrations and reference charts are numerous and well done. The index is complete.

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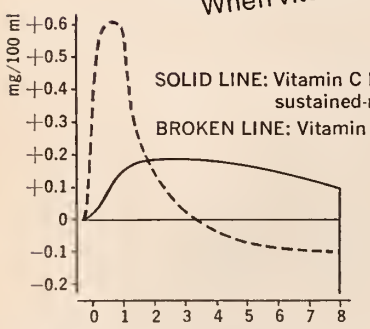


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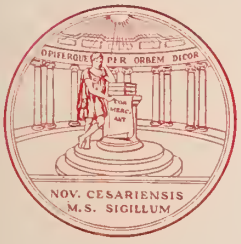
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Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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EDITORIALS

The Passing of the Mobile X-ray Unit

With antibiotic and chemotherapy for tuberculosis, the "white plague" is no more. The former incidence, morbidity, mortality, and long duration of illness have improved remarkably so that this disease has lost its former dread. Modern therapy is so potent and specific that failure to respond justifies doubt as to the diagnosis, while inadequate therapy can confuse the clinical picture.

The benefits of modern therapy are evident in the closing or transformation for other purposes of many former tuberculosis hospitals (Trudeau, Raybrook, American Hospital in Denver, Sea View, and many others), and in the present use of ambulatory care in lieu of the prolonged hospital stay and bed rest of the past.

With this dramatic changing picture, methods of case finding in the general population must change too. The mobile x-ray unit is no longer an effective public health measure to achieve this objective. Watching for the conversion of the negative reactor offers a less costly, less hazardous, and more informative "alert" for further procedures to rule out active tuberculosis in the lung and elsewhere. The mobile x-ray unit too requires relatively higher levels of exposure to ionizing radiation.

All progress brings change and this often demands adjustment; in this instance a change in policy. The new joint policy statement of the American College of Chest Physicians, the American College of Radiology, and HEW Food and Drug Administration recommending the abandonment of the mobile x-ray unit as a means of case finding is timely and welcome and an indication of real progress.

—From the New York State Journal of Medicine, July 15, 1972.

Hazards of Medication

It is not news to observe that we live in a drug-oriented culture. Some two billion prescriptions are annually dispensed in the U.S.A. not to mention the millions (or maybe billions) of over-the-counter doses sold by retail outlets. And television commercials constantly remind us of the magic that the pills and liquids can work when dropped into the ever-receptive gastrointestinal tract.

Yet, in the words of a recent book* on the subject, "there are no harmless medications. All are potentially hazardous and must be prescribed with caution." This kind of warning cannot be repeated too often.

Our own Stewart Alexander was one of the co-authors of this volume. One of the lesser remembered hazards is the wrong dose caused by confusion of grains and Grams or by missing one of the zeros in such dosages as 0.005 grains. Another hazard comes from look-alike trade names. (You wouldn't want the pharmacist to issue Laxsil because you wrote Lasix so badly on your Rx blank, for instance.) Then too, there is the matter of incompatibilities. Everyone of us who got out of medical school before, perhaps 1930, heard a lot about and worried about incompatibilities. Remember to indicate the number of refills you want, and don't let the patient refill the medication for twenty years, because you forgot to put a stop date on it. Consider too, the effect of medication on biochemical tests that may have been ordered. Some drugs interact badly with some foods—MAO inhibitors with cheese-like products, for instance. After all, one of the main businesses of Medicine is medicine, and we ought to remember that every prescription blank bearing our signature is not only a passport to health as the patient sees it, but may sometimes be a passport to mischief.

* *Hazards of Medication*. Eric W. Martin, Ph.D., Stewart F. Alexander, M.D., Donald J. Farage, LL.D., and W. E. Hassan, Jr., Ph.D. Philadelphia, Lippincott, 1971.

Emotional Problems of Physicians

In one of its August 1972 issues, the *New England Journal of Medicine* published the fruit of a long research study by a Tufts-Harvard team (Drs. George Vaillant, Nancy Sobowale, and Charles McArthur) which suggests a high titre of emotional illness among physicians. Not only that, but the researchers reject the thesis that the problems are the result of the tension-producing responsibilities of medical practice and ascribe the difficulties to childhood experiences. Three criteria were overuse of drugs, need for frequent psychiatric consultation, and a bad marriage. The index group consisted of 47 physicians against a control of 79 men who had been their classmates at premedical colleges. The 79 controls went into other professions. The research revealed the (seemingly incredible) figure that 47 per cent of the physicians had had bad marriages, a finding only slightly alleviated by the report that 32 per cent of their non-medical contemporaries had also achieved bad marriages. The definition of "bad marriage" was, perhaps, a bit generous, since it was defined as "the couple not considering the relationship stable and that divorce had been at least casually considered."

Another problem-pointing criterion was "seeking relief from drugs." This meant "using sleeping pills, amphetamines, or tranquilizers for more than a month." For doctors, this figure turned out to be 36 per cent with 22 per cent for the controls. And it seemed that 34 per cent had visited a psychiatrist ten or more times. This might, of course, be construed as evidence of making a constructive decision rather than as a reflection of emotional pathology. And the "often" use of hypnotic medication is also a questionable criterion of psychopathology. The high ratio among non-physicians (22 per cent of all the controls) would seem to dilute the significance of the interpretation.

It is impossible to weigh the selective effect of medical school acceptance. In a way, freshmen medical students represent survivors among thousands who had entered premedical programs. The base year was 1942. The subjects had all been college sophomores that year. That was right after Pearl Harbor, and it is a question how "normal" that period might be considered.

One of the conventional complaints against physicians today is that they lack compassion and treat patients coldly and mechanically. One would think that a little anxiety is a desirable trait in a medical practitioner. In concern about his patients, a doctor should have a reasonable level of anxiety. And perhaps one of the things shown by this Vaillant survey is that a certain proportion of physicians are anxiety-prone. It is hard to accept the implication that anxieties are not, in part at least, due to the pressures and responsibilities of the practice itself.

Fountainhead of All Research

You sometimes hear, as a bit of flippancy, that practice would be fine if only we didn't have to worry about patients. Since patients are the only reason for practicing medicine, the joke is not very funny. The patient also has a less obvious role. He is the fountainhead of all research. Imaginative people are always trying to dream up research projects. But they often leave untilled the one never-ending source of ideas and fountain of factual datum—the one we must know how to read. It is an endless source, one not exhaustible. He is a book waiting to be read by a sensitive eye and an inspired mind. Every patient offers an opportunity for a fresh look at the facts. In the equations of medical research, he represents the unknowns, and converting the unknown into the known is the goal of medical research. If one appears to be worn out by reviewing the same research questions, there is strength to be found by going back to the prime source: the patient. It takes time, thoroughness, innovativeness, and creativeness. But these are precisely the elements of sound practice.

ORIGINAL ARTICLES

Here offered is a veritable handbook on the handling of arrhythmic emergencies in patients with myocardial infarction.

Emergency Management of Arrhythmias in Patients with Myocardial Infarction*

Bernard L. Segal, M.D./Philadelphia

About 550,000 people die each year in the United States because of coronary heart disease. Half of these patients never reach the hospital. Approximately a quarter million of these patients will die of cardiac failure and cardiogenic shock syndrome.

During the past ten years, the development of coronary care units has impressively reduced mortality from acute myocardial infarctions. The effectiveness of the coronary care units is due to careful monitoring of patients. Sudden death in acute myocardial infarction is generally due to electrical derangement in heart rhythm manifesting as ventricular fibrillation. Premature ventricular contractions (PVC) precede the sudden death. If detected, these premonitory arrhythmias can be suppressed appropriately before they develop into more serious rhythm disturbances. Suppression of the PVC with antiarrhythmic drugs prevents the occurrence of ventricular fibrillation. Coronary care should begin as soon as the patient reaches the emergency room of a hospital even before entering the coronary care unit.

Most arrhythmias, especially the life-threatening ones, occur within the first four to five days of an acute myocardial infarction. Approximately 40 per cent of all deaths occur during the first hour. Ventricular fibrillation is twenty-five times more likely to happen during the first four hours than in the following twenty-four hours. This underscores the necessity of applying the principles of coronary care at the earliest opportunity and not waiting until the patient is transferred to the CCU.

About two-thirds of the patients require therapy even before transfer to the hospital. Brady and tachyarrhythmias occur in approximately 80 per cent during the first hour. Patients with acute myocardial infarction should be monitored at the earliest possible moment. The physician at the bedside must recognize these arrhythmias which are often potentially serious and life-threatening. He must be able to deal quickly and appropriately with these rhythm disturbances.

The physician should also be available for cardiopulmonary resuscitation. Resuscitation is unlikely to succeed where cardiac arrest complicates a progressive downhill course accompanied by serious metabolic disturbances secondary to failing respiration or perfusion. Patients with evidence of severe cardiac decompensation rarely survive the initial arrest. However, among those patients who were previously not hypertensive or in gross cardiac failure, there is generally a high success rate, with many patients surviving to leave the hospital with a good long-term prognosis.

*Read before the Sections on Medicine, Cardiovascular Diseases, and Radiology, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 7, 1972. Dr. Segal is Clinical Professor of Medicine, Hahnemann Medical College.

The restoration of interrupted ventilation, the correction of hypokalemia or severe hypervolemia may lead to a successful resuscitation. It is part of the physician's duty to recognize these life-threatening arrhythmias early, to treat them promptly, to administer cardiopulmonary resuscitation in those patients who are a good risk. It is also the responsibility of the physician to recognize the inevitability of death in certain situations and to avoid the unnecessary physical and emotional trauma associated with an unsuccessful attempt at resuscitation.

Arrhythmias in an acute myocardial infarction can be categorized according to their ventricular rate. When the heart rate is too slow, we term these conditions as bradyarrhythmias and too fast—tachyarrhythmias.

Tachyarrhythmias

Tachycardia originating from the atrioventricular junction or ventricles may precipitate serious and even fatal consequences for the patient. The rapid heart rate often leads to a sharp fall in cardiac output with hypotension and reduced coronary perfusion. Cardiac decompensation may be made worse because the increased heart rate increases the demand of the myocardium for oxygen at a time when the patient can least afford it. The prevention and the prompt termination of a tachyarrhythmia is the major reason why the CCU may save lives.

Atrial Arrhythmias

Atrial premature beats (frequently the harbinger of premature atrial tachycardia) have been detected in about 15 to 30 per cent of continuously monitored patients with myocardial infarctions.

PAT is uncommon, occurring in 1 to 5 per cent of all patients with myocardial infarction. These episodes may be short or sustained and are sometimes episodic. Occasionally, this arrhythmia is the result of digitalis toxicity. It is often seen in patients with cardiac failure and the management is dictated by the urgency of converting the arrhythmia. Carotid sinus pressure, gagging, and the Valsalva maneuver often terminate the attack; Digoxin administered intravenously 0.5 mg. to 1 mg. with slow increments of digoxin therapy is often successful in terminating the attack. Cardioversion should be applied only if the PAT precipitates serious hypotension, failure, or coronary insufficiency pain.

When the PAT is due to digitalis excess, then the replacement of potassium 40 to 60 milliequivalents over a three to four hour period intravenously or potassium chloride by mouth is often successful in terminating the arrhythmia. Propranolol, 1 to 2 mg., given slowly intravenously may be useful particularly when cardiac failure is absent. Cardioversion is contraindicated in these patients. Diphenylhydantoin is often helpful in terminating the arrhythmia, if given 100 to 300 mg. intravenously.

Atrial Flutter

This is extremely rare in the patient with acute myocardial infarction. Digoxin alone may terminate the attack, 0.5 mg. intravenously to slow the atrial flutter and increase the block, then quinidine, 2 to 400 mg. every 2 to 4 hours for five doses, may convert the patient to sinus rhythm. If the atrial flutter should persist in spite of digoxin therapy, the drug should not be continued and DC conversion using a synchronized shock is very often successful in treating this arrhythmia. In the absence of cardiac failure, digoxin plus propranolol, 1 to 2 mg. intravenously, every 3 to 4 hours, or 10 to 30 mg. by mouth every 4 to 6 hours, may be combined with digoxin therapy to slow the ventricular response. These patients may require maintenance quinidine, 200 mg. to 400 mg. every 4 to 6 hours, to prevent recurrent episodes.

Atrial Fibrillation

This occurs in approximately 10 per cent of patients with myocardial infarction, is sometimes intermittent, and may revert spontaneously. The ventricular response generally

slows with digoxin orally and/or propranolol therapy. Propranolol is advised for patients without cardiac failure. Conversion is often successful with quinidine. These patients can also be converted with DC cardioversion.

Ventricular Tachyarrhythmias

The elimination of sudden, fatal, ominous ventricular arrhythmias has reduced mortality in acute myocardial infarction. Emphasis has been placed on the ventricular premature contraction as a precursor to ventricular tachycardia or fibrillation. Incidence of potentially fatal ventricular arrhythmias decreases markedly in the initial week after acute myocardial infarction.

Ventricular Premature Beat

The VPC occurs in at least 80 per cent of the constantly monitored patient during acute myocardial infarction. The hazards of a VPC, particularly when they occur in the vulnerable phase of the cardiac cycle are likely to precipitate ventricular tachycardia or ventricular fibrillation. Repetitive ventricular beating may also be initiated by ventricular ectopic beats outside the vulnerable phase. We generally accept the criteria for suppression of VPC's in the setting of myocardial infarction: (a) when they occur with an absolute frequency greater than five beats per minute; (b) when they fall in the vulnerable phase of the cardiac cycle; (c) when they are multifocal; and (d) when they are coupled or occur in salvos. For the suppression of ventricular ectopic beats, lidocaine is generally the most effective and least toxic agent. The efficacy of lidocaine and therapy of ventricular arrhythmias associated with myocardial infarction is unquestioned. By its action to depress phase 4 depolarization and shorten the effect of refractory period, it is effective in ventricular arrhythmias secondary to disorders of both automaticity and re-entry alike. The praises of lidocaine have been so widely sung, and toxic reactions so infrequent, that the routine administration to patients with myocardial infarction for the first few days has been proposed. How benign is lidocaine? The effects on the central nervous system are well known to anyone using the drug. The early signs of twitching, drowsiness, and disorientation can be precursors of frank convulsions. Toxic plasma concentrations of the drug can occur even before the earliest neurologic signs. This is particularly important in the presence of hepatic failure since the drug is metabolized almost entirely by the liver, and in congestive failure where the drug has a lower volume of distribution leading to higher plasma concentrations. Lidocaine can be administered rapidly intravenously in a dose of 1 mg./kg. of body weight or between 50 and 100 mg. in the average adult. An additional bolus can be provided every three to five minutes of 50 to 100 mg. until the arrhythmia is abolished or total of 5 mg/kg. has been administered in the period of 15 to 20 minutes. Lidocaine is metabolized rapidly in the liver and its effects last for only 15 to 20 minutes. The short action has the disadvantage that the arrhythmias may not be suppressed for long if there is a tendency toward recurrence. It can then be given over a protracted period of time with constant infusion, 1 to 4 mg./min.

For patients sensitive to lidocaine or exhibiting persistent ventricular irritability as lidocaine is tapered, one of the longer lasting anti-arrhythmic agents may be used. Procainamide by mouth is given in the loading dose of 500 mgm. to 1 Gram, followed by 250 to 500 mg. every three to four hours. It can be given intra-muscularly if necessary. High blood concentration of procainamide may be associated with hypotension and depressed myocardial contractility.

Quinidine by mouth in doses of 200 to 400 mg. every 4 to 6 hours may also be used for suppressing ventricular irritability. Propranolol may also be used as the agent for ventricular irritability. Unfortunately, it depresses myocardial contractility; in addition, it may slow sinus rate more than any other agent. The combination of propranolol, procainamide and lidocaine is often useful in abolishing PVC's. These drugs in combination can be given orally or intravenously.

Ventricular Tachycardia

Ventricular tachycardia is defined as three or more successive beats of ventricular origin occurring at a rate greater than 120 beats per minute. Of all the cardiac tachyarrhythmias, ventricular tachycardia produces the most serious compromise of cardiac performance. The incidence in acute myocardial infarction is about 5 to 10 per cent. The diagnosis at the bedside is suggested by the following findings: (1) intermittent cannon waves in the jugular venous pulse; (2) variation in the intensity of the third heart sound; (3) variation in peak systolic blood pressure; and (4) abnormal splitting of the second sound and third and fourth heart sounds.

The management of ventricular tachycardia is dictated largely by the patient's status consequent to the tachycardia. If ventricular tachycardia results in serious clinical deterioration or if lidocaine is unsuccessful, then cardioversion should be undertaken. Synchronized DC shock with transient amnesia using diazepam (10 mg. intravenously) is well tolerated.

Recurrent ventricular tachycardia may be treated with constant infusion of lidocaine in combination with Inderal® and/or quinidine and/or procainamide. In the patient with refractory ventricular tachyarrhythmia, emergency coronary arteriography may be performed in order to determine whether the patient is a candidate for saphenous vein bypass surgery. In our experience with ten patients with resistant ventricular tachyarrhythmias, only coronary revascularization was successful in controlling the life-threatening arrhythmia.

Rapid cardiac pacing may suppress irritability; pacing electrodes can be positioned either in the right atrium when AV conduction is intact, or in the right ventricle if AV block is present. In general, it can be stated that the slower the basic heart rate before pacing, the more likely it is that rapid pacing will be successful in overdriving the arrhythmia. Such pacing is used only as a temporary measure and frequently is unsuccessful over a long term to suppress ventricular irritability in patients with myocardial infarction.

Prophylaxis

Should lidocaine be given routinely to all patients with myocardial infarction in the coronary care unit? It appears that mortality is not reduced in the coronary care unit by the routine use of lidocaine. Lidocaine may also induce hypotension in the presence of severe failure; it may induce sino-atrial arrest and for these reasons should be used cautiously in certain high risk patients, especially in those elderly individuals with sick sinus syndrome of inferior myocardial infarction where a sinus bradycardia frequently underlies the ventricular arrhythmia. It appears that the early recognition and treatment of ventricular arrhythmias is all that seems necessary to reduce the mortality from ventricular irritability.

Bradyarrhythmias

Most physicians will agree that the reduction in mortality of hospitalized patients with acute myocardial infarction is primarily due to the recognition of early manifestations of ventricular irritability in the coronary care unit. The treatment with effective antiarrhythmic agents and the problem of reduction in the incidence of ventricular fibrillation in the hospital is primarily responsible for the reduction in the mortality rate.

The bradyarrhythmias are also common potentially lethal and treatable complications of acute myocardial infarction. They represent a very early complication of infarction and often occur even before the patient is admitted to the hospital. In general, the bradyarrhythmias may be divided into those which represent alterations of normal impulse formation within the sino-atrial node and those due to failure of a normally initiated impulse to propagate over the conducting system to the ventricles. Most frequent manifestation of sinus node dysfunction is sinus bradycardia. If the degree of slowing is sufficient, an escape rhythm usually occurs from the AV junction-

al tissue; if the junctional escape continues for a period of time, then an AV junctional rhythm develops. The inherent rhythmiticity of the junction usually leads to a heart rate of 40 to 60 beats per minute and the ECG in this setting usually displays a QRS complex of normal duration. Sinus bradycardia with a subsequent escape rhythm is usually a consequence of inferior myocardial infarction.

The incidence of sinus bradycardia in monitored patients with acute myocardial infarction ranges from 10 to 30 per cent. There appears to be a substantially higher incidence of sinus bradycardia in the first few hours after an acute infarction and the occurrence of a bradyarrhythmia is much more frequent in the setting of inferior infarction. Inferior infarction is noted to be presented three times more frequently than an anterior infarction in our patients with sinus bradycardia.

Failure of a supraventricular impulse to propagate to the ventricles is the other major cause of a slow pulse rate after acute myocardial infarction. First degree, second degree, and third degree disorders of cardiac impulse conduction may occur at three different levels of the conduction system; the AV node, the AV bundle (His) and peripheral fascicles. When AV block arises because of failure of impulse propagation within the AV node, the morphology of the QRS complex during the resultant escape rhythm is usually normal. When AV block occurs because of failure of impulse propagation below the AV node, morphology of the QRS complex is almost never normal, and the duration of the QRS interval is prolonged to 0.12 seconds or longer. Occlusion of the posterior circulation, usually involving the right coronary artery but occasionally the left circumflex artery, leads to inferior infarction and block in the AV node. If occlusion of the anterior descending coronary artery leads to a conduction disturbance, more distal areas of the system are involved, primarily the branching part of the Bundle of His and the proximal right and left bundle branches. On the basis of recurrent studies, it seems reasonable to conclude that a majority of patients with inferior infarction and acute complete heart block have necrosis either within or very nearly adjacent to the proximal conducting system. The block is often transient and the degree of block may be decreased by IV 0.5 to 1 mg. of atropine. In most patients with anterior infarction and heart block, the extent of infarction is pronounced. Extensive coronary artery disease is usually found involving both the posterior and anterior circulation. In the patients with anterior infarction, progression to a high degree of block is sudden. The idioventricular escape rhythm is slow with often bizarre morphology of the QRS complex. Syncope is much more likely than with inferior infarction. In the patients with inferior infarction, the QRS morphology results from escape pacemaker below the site of the block and is usually normal and the rate of escape pacemaking is usually between 45 and 60 beats per minute.

Disturbances of atrio-ventricular conduction are usually an early consequence of acute infarction. Heart block may be present on admission; in about three-quarters of all patients who develop a second or third degree block, the block occurs within the first four days. The great majority of patients with AV block last from a few hours to several days with an average of two to three days. Regardless of the location of the infarction, complete heart block is associated with a relatively low mortality in the absence of heart failure. When heart failure is present, heart block is more serious and the mortality may approximate 80 per cent.

From a hemodynamic viewpoint, the loss of atrial contribution and heart block may represent a significant component of the hemodynamic deterioration which accompanies the bradyarrhythmia of myocardial infarction. Also, ventricular premature beats and ventricular tachycardia are more common in patients with infarction when the pulse rate is slow. These signs of ventricular irritability can be abolished frequently by increasing the pulse rate either by atropine or pacing.

Therapy of bradycardia in patients with

acute myocardial infarction involves considerations of whom to treat, when and how. When bradycardia is associated with hypotension, shock, or cardiac failure, increasing the heart rate may improve the hemodynamic state of the patient and elevation of heart rate alone may also abolish dangerous ventricular arrhythmias. In most patients with sinus bradycardia or second degree heart block of Wenckebach, atropine 0.5 to 1 mg. intravenously is successful in improving AV conduction and relieving bradycardia. Repeated injections of atropine produce an increased pulse rate principally by decreasing vagal tone. The hemodynamic effects of atropine include an increase in cardiac output without a major change in stroke volume and a decrease in peripheral resistance. Atropine is effective by the oral, intramuscular, subcutaneous, or intravenous route. The duration of the effect of atropine depends on the route of administration. Intravenous atropine has a duration of action of about 30 minutes, while the effects of intramuscular atropine persist from one to two hours. The undesirable side effects of atropine (observed occasionally, and usually only after repeated doses) include urinary retention, glaucoma, and personality changes. A prompt response in both heart rate and blood pressure occurs in patients with sinus bradycardia with intravenous atropine 0.5 to 1 mg. intravenously. From experiences with mobile coronary care units, the administration of intravenous atropine to all patients with a heart rate of fewer than 60 beats per minute is suggested. I prefer atropine to isoproterenol, since the latter may produce VPC's in an irritable myocardium.

Therapy for the disturbances of impulse conduction is unsettled and much controversy remains as to the indications, type, and length of therapy. Most recent form of therapy involving this controversy is pacing. Most patients with anterior infarction and complete AV block have extensive infarction with heart failure and seem to do poorly with or without pacing. Conventionally, many patients with inferior infarction and complete AV block do not develop overt heart failure and seem to do well even if pacing is not used. Most investigators would agree that, when patients with inferior infarction and heart block have frequent PVC's or ventricular tachycardia, pacing alone may eliminate the signs of ventricular irritability. It most certainly makes treatment with antiarrhythmic drugs more effective. Pacing should be employed for patients with inferior infarction and heart block, if there is either moderate heart failure, syncope, or ventricular irritability. Most patients with anterior infarction complicated by complete heart block have severe heart failure. Data do not support the view that pacing such patients alters mortality. The major interest in pacing with anterior infarction is the identification of patients who will develop complete heart block. Prophylactic insertion of a pacing catheter is suggested for this high risk patient.

Patients with anterior myocardial infarction, right bundle branch block and in addition either left anterior or left posterior hemiblock seem to have a particularly high risk of progression. Also, patients with anterior myocardial infarction and left bundle branch block may have the sudden and complete heart block. A pacemaker catheter should be inserted prophylactically in these patients. Syncope and sudden death may occur when the pacemaker is removed from these patients and some observers have suggested that the pacemaker should be inserted on a permanent basis. There are three situations in which ventricular pacing should probably be instituted. If the heart rate cannot be maintained at more than 45 beats per minute; if there is complicating hypotension or congestive failure; or if the slow heart rate leads to significant ventricular irritability. Atropine should be tried first. However, if these drugs do not produce an increase in ventricular rate, a temporary transvenous pacemaker is needed.

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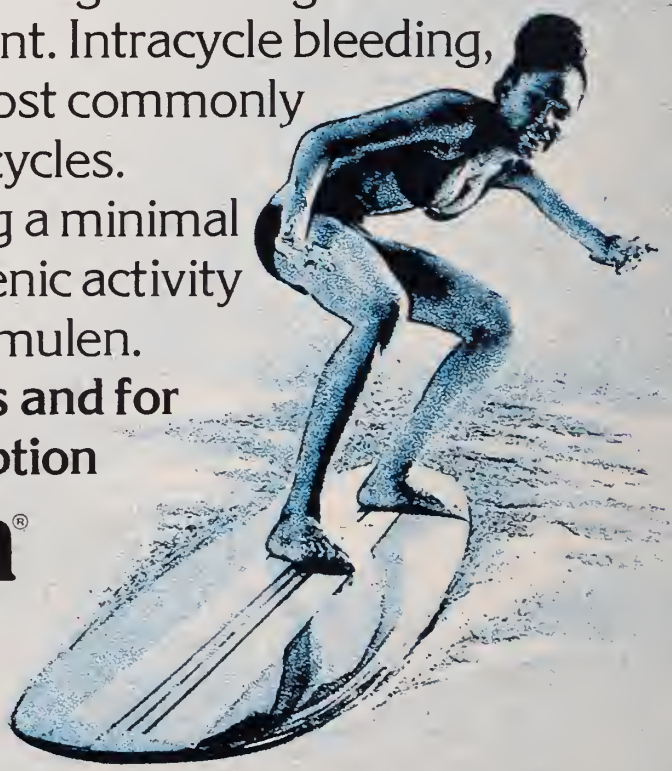
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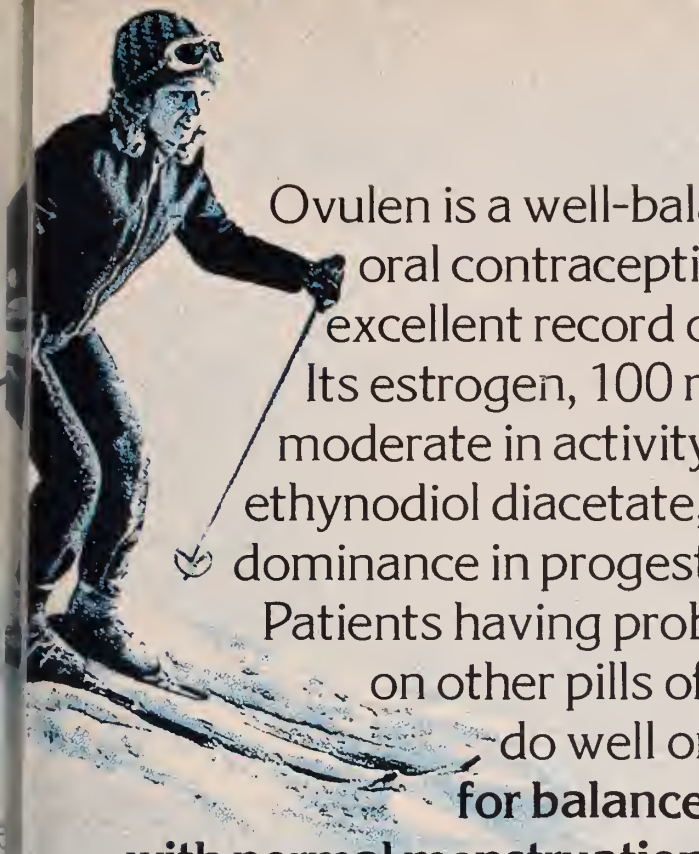
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Each pink tablet in Ovulen-28® and Demulen-28® is a placebo containing no active ingredients.

Actions – Ovulen and Demulen act to prevent ovulation by inhibiting the output of gonadotropins from the pituitary gland. Ovulen and Demulen depress the output of both the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH).

Special note – Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication – Ovulen and Demulen are indicated for oral contraception.

Contraindications – Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings – The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain[1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Ovulen and Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions – The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Ovulen or Demulen. Therefore, if such tests are abnormal in a patient taking Ovulen or Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations preexisting uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Ovulen or Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Ovulen or Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Ovulen or Demulen may mask the onset of the climacteric. The pathologist should be advised of Ovulen or Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives – A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function, increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

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Indication – Enovid-E is indicated for oral contraception.

The *Special Note, Contraindications, Warnings, Precautions* and *Adverse Reactions* listed above for Ovulen and Demulen are applicable to Enovid-E and should be observed when prescribing Enovid-E.

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Meningitis due to Listeria monocytogenes is not common, and often not even thought of. But, as here indicated, it is treatable and should be looked for in cases of clinical meningitis.

Listeria Monocytogenes Meningitis*

Report of a Case and Review of the Literature

Norman D. Corwin, M.D./Westwood

Meningitis due to Listeria monocytogenes has been reported with ever-increasing frequency.[1-7] Its age distribution pattern[8] is bi-modal. The illness afflicts the neonatal infant in the first three weeks of life and then, curiously, does not manifest itself with any frequency until the fifth and later decades of life. In the latter group, listerial infection is often found in individuals with such predisposing factors as lymphomatous disease, rheumatic or congenital heart disease, and chronic alcoholism; but in most instances[2] no underlying illness is present. In virtually every study documented in the literature, writers have commented on the baffling epidemiology of this organism. In the case reported herein Listeria monocytogenes meningitis occurred in a middle-aged diabetic woman; therapy was offered promptly and she recovered completely.

A 59-year old widow was admitted to the hospital with a complaint of severe occipital headache of five hours' duration. She was known to have been hypertensive and had been treated with furosemide and guanethidine. In addition, she was known to have diabetes mellitus and took tolbutamide, 0.5 Grams daily. She had been admitted to the hospital previously for study of her hypertension and control of her diabetes. Cushing's disease had been excluded at that time by steroid determinations. The patient had been last seen seven months prior to admission. Upon awakening on the morning of the day of admission, she noted an occipital headache which radiated down her back to her legs. She then took four Anacin® over a four-hour period. Ultimately, she became nauseated. She was seen in the hospital emergency room with a blood pressure of 240/110. This was substantially higher than her usual 150/90.

She had undergone cholecystectomy and total hysterectomy in the past. The patient did not smoke or drink. The family history was non-contributory. Systemic review revealed no history of syncope, vertigo, dyspnea, or chest pain. She had not had muscle weakness, paralysis, or seizures. She had experienced a headache of skull-cap distribution infrequently; this had been attributed to emotional tension.

On admission, blood pressure was 220/120. Pulse was 80 with some irregularity. The respiratory rate was 16. Rectal temperature was 101. She was an obese female who complained of headache and nausea. The pupils were equal and reacted briskly to light. Optic fundi revealed no hemorrhages or exudates. The disc margins were clearly delineated and there was some tortuosity of the arterioles. The neck lacked suppleness, but no real Kernig or Brudzinski sign could be elicited. The chest was clear. The breasts were free of nodularity. The heart was enlarged to the left with the PMI in the sixth intercostal space at the mid-clavicular line. The second sound in the aortic area was loud and an ejection click was heard. There was a soft ejection systolic murmur over the base. No diastolic murmur was audible. No third or fourth heart sounds were heard. There was no evidence of enlargement of the liver, spleen, or kidneys. Rectal examination proved negative. Examination of the extremities revealed no cyanosis, clubbing, or edema. The skin was free of exanthem; no petechiae were seen. Neurologic examination revealed symmetrically active deep tendon reflexes with a bilateral Babinski. Hemoglobin was 15.1; hematocrit 44 per cent; white blood cells numbered 13,600 with 59 per cent neutrophils of which 25 per cent were bands, 40 per cent lymphocytes of which a fourth were reported as atypical, and one eosinophil. Erythrocyte sedimentation rate was 22, fasting blood sugar 134, blood urea nitrogen was 14, the sodium 130, potassium 3.4, chloride 102, carbon dioxide content 26, calcium 10.5, phosphorus 3.0, bilirubin 0.6, total protein 8, and uric acid was 4.8, LDH was 155 units (normal 30 to 145), the alkaline phosphatase 14 King-Armstrong units, the SGOT 20 units (normal 20 to 40). The serum protein electrophoresis ultimately proved normal.

The electrocardiogram revealed a normal sinus rhythm with frequent atrial premature contractions showing aberrant conduction. QRS complexes were of high voltage. Left axis deviation was present; ST segment and T wave abnormalities were noted. These findings

*From the Pascack Valley Hospital, Westwood, New Jersey.

suggested left ventricular hypertrophy. X-ray at the bedside revealed a cardiac size at the upper limits of normal; lung fields were clear.

Following admission, the suggestion of meningeal irritation together with headache and vomiting in addition to her hypertensive state prompted lumbar puncture to exclude subarachnoid hemorrhage. Lumbar puncture revealed an initial pressure of 170 mm of water. The spinal fluid was free of blood but proved minimally cloudy when held up to light. A Gram stain of the spun-down sediment of the spinal fluid revealed Gram-positive forms which had a faint resemblance to pneumococci. The cerebrospinal fluid protein was 73, the sugar 87, the white blood cell count 2,270 with 90 per cent neutrophils and 10 per cent lymphocytes. For this reason, penicillin G, 2 million units given intravenously in 50 cc over ten minutes every two hours, was begun. Throughout the day, the patient became more confused. Admission temperature of 101 rose gradually to 103 early on the following day; however, she became afebrile after 72 hours of treatment. Two days after admission, the report showing spinal fluid growing Gram positive short bacilli with extensive cultural characteristics of Listeria monocytogenes was obtained. The organism (on disc testing) was sensitive to penicillin, erythromycin, cephaloridine, ampicillin, chloramphenicol, methicillin, vancomycin, and garamycin; it was resistant to tetracycline, sulfonamides, streptomycin, and nafcillin.

She was seen in consultation by an infectious disease specialist who urged continuation of the penicillin regimen as outlined. He recommended a two-week course of penicillin. On the third hospital day, lumbar puncture was repeated. The initial pressure was 135 mm of water. Cell count was 422 with 90 per cent neutrophils and 10 per cent lymphocytes. Protein was 85 and the sugar 106. At this time the blood sugar was elevated and the patient was receiving small increments of regular insulin. Her mental status cleared and the headache disappeared. On the seventh hospital day, the lumbar puncture was again repeated with an initial pressure of 130. Cell count was 43 all neutrophils. Protein was 60 and the sugar 58. On the thirteenth hospital day, the lumbar puncture revealed a cell count of 200 with 19 per cent neutrophils and 81 per cent lymphocytes. The protein was 56 and the sugar 82. Aside from a brief temperature elevation on the fourteenth hospital day (ascribed to an obvious phlebitis in the forearm) the patient remained afebrile upon completion of fourteen days of penicillin therapy. On the sixteenth hospital day, the initial pressure of the spinal fluid was 170 millimeters of water with 19 red blood cells, 89 white cells with 13 per cent neutrophils, and 87 per cent lymphocytes. The protein was 48 and the sugar was 71. She was discharged on the nineteenth hospital day asymptomatic.

At no time was there evidence of underlying hematologic disorder or occult malignancy. She did give a history of contact with a pet hamster belonging to a grandchild. Attempts to recover the animal for appropriate culture were fruitless as the family had had the animal destroyed upon hearing of the suggestion that it might be the carrier of the illness. She has remained clinically well for eleven months since discharge from the hospital.

Listeria monocytogenes was first described as Bacterium monocytogenes by Murray, *et al.*[9] in 1926 who isolated the organism from laboratory rabbits. These rabbits demonstrated increased numbers of large mononuclear cells in their peripheral blood; this finding gave rise to the "monocytogenes" appellation. In 1929, Nyfeldt[10] isolated the organism from the blood of patients with an illness similar to infectious mononucleosis. He used the term Listerella monocytogenes hominis. (The name Listeria monocytogenes was adopted officially in 1940.) Though unrecognized as such, Schultz, *et al.*[11] in 1933 reported a case of meningoencephalitis in a nurse who later recovered; the organism was erroneously identified as a diphtheroid. In 1934 Burn[12] noted meningoencephalitis in three newborn infants caused by an unidentified Gram-positive bacillus which he later[13] characterized as Listerella, adding a fourth case in the latter report.

Listeria monocytogenes organisms are small, motile, coccoid rods about 0.5 by 1 to 3 microns in size. The motility has been described as "curiously tumbling."[1, 4] The organism does not form capsules or spores. They are non acid-fast but have been mistaken for tubercle bacilli.[14] They are not fastidious as they show excellent growth on many ordinary media. They may be mistaken for diphtheroids.[15] They form small, round bluish-gray colonies showing beta hemolysis on blood agar. On broth cultures, the bacteria appear more coccoid. While the organisms grow well on blood agar and thioglycollate broth, it has been suggested[6] that isolation is facilitated by growing the organism in trypticase broth and refrigerating part of this (or one flask of a blood culture). If the initial cultures fail to grow, transfers from the refrigerated enrichment broth or blood culture flask may grow out rapidly.[7]

The beta hemolysis and the motility are important in separating L. monocytogenes from the corynebacteria and Erysipelothrix rhusiopathiae, as neither of the latter exhibit both characteristics.[4]

The organism is usually catalase positive, urease negative, and acid forming. It ferments dextrose, maltose, and salicin but

shows no growth on lactose, mannitol, and sucrose. Indole is not produced by this bacillus; nitrate is not reduced.[16] Citrate is not utilized. Gelatin and coagulated serum are not liquefied.

Correct identification of the organism was made by only 55 per cent of 71 laboratories.[17]

Spinal fluid specimens containing L. monocytogenes were received by Welshimer[18] in which the organism was thought to be pneumococcus, streptococcus, or meningococcus on the basis of direct smears. He points out, however, that these errors were made by clinicians, not laboratory technicians.

Pathogenicity studies may be carried out in a variety of animals[19]; the eye of the rabbit when infected will show purulent conjunctivitis in several days.

The organism may be classified into serotypes using the presence of somatic and flagellar antigens as the basis for four types. Types 1, 2, 3, 4A and 4B have been reported in the United States. Most strains from North America are type 4B, with type 1 the next most frequent.[20] This ratio was inverted in a series reported by Louria, *et al.*[2]; L. monocytogenes infection, however, was superimposed upon pre-existing malignancy in all eighteen cases reported.

L. monocytogenes has been isolated[7] from water, silage, and mud. It has also been found[21] in spring water, meat, and in the excretions of infected animals. In the United States, the organism has been recovered[21] from skunks, raccoons, foxes, and ferrets. All in all, it has been recovered[5] from at least 35 mammals and 97 species of fowl.

Experimental animal data[8] show that artificially infected pregnant animals, if severely infected, give birth to offspring with septicemia; however, if the maternal infection is light, the offspring will be well at birth but develop meningitis within the first few days of life. In human studies, many investigators have recovered the same bacterial strains from both mothers and their infants. It is not known where and how the mother comes in contact with the organism.

L. monocytogenes may produce a variety of disorders in man[8] including meningitis, febrile states, pneumonitis, endocarditis, conjunctivitis, urethritis, and pyoderma. Nichols stated in 1964 that tetracycline was generally regarded as the therapy of choice in all forms of listeric infection.

The meningitis caused by L. monocytogenes is not distinctive clinically. The patient is febrile; the spinal fluid is cloudy with or without increased pressure. The cell count may show either a preponderance of lymphocytes or neutrophils. The spinal fluid sugar may be lowered; if this is profound, prognosis is poor.[20] The peripheral blood shows a leukocytosis usually due to an increase in neutrophils rather than monocytes or lymphocytes.

Buchner and Schneierson[5] state that if a short Gram-positive rod which is hemolytic and motile is recovered from the blood or spinal fluid of a symptomatic patient, it should be regarded as Listeria for all practical purposes. They review ten cases and say that prompt administration of an antimicrobial agent is essential, preferably tetracycline by intravenous infusion. They cite the fact that in a review of the literature all eight cases of listeric infection treated with tetracycline alone recovered.

Meningitis of the newborn carries a high mortality; it frequently leaves residual neurologic damage.[23] Susceptibility during pregnancy may be enhanced as witnessed by the high incidence of perinatal infections.[23] It is of interest that the organism has been found in the human vagina and male urethra[11] in normal subjects.

Simpson, *el al.*[24] reported four cases of listeriosis complicating lymphoma, three with Hodgkin's disease and a fourth with lymphosarcoma. Louria, *el al.*[2] noted that 18 of 18 listerial infections arose in patients with

established lymphatic malignancy; admittedly, this series reflects the population of Memorial Hospital, New York, a cancer treatment center. But in Gray's series, as reported by Simpson, *et al.*,[24] of 546 cases only 37 occurred in older children or adults with neoplasms. Of the latter, eleven had Hodgkin's disease, 4 had lymphosarcoma, and 12 had leukemia. Hypogammaglobulinemia and/or antecedent corticosteroid therapy may contribute to this association.

Louria, *et al.*[2] quote Gray's series as 539 cases of listerial infection in all age groups; Gray found that 359, or 77 per cent, had meningitis or meningoencephalitis. Louria, *et al.*[2] then reviewed 100 cases involving persons more than three months of age and found that 78 per cent had meningitis. Of the 78 with meningitis, 69 had been treated; of the latter, 25 died. Of 22 patients with nonmeningeal disease who were treated, including five with subacute bacterial endocarditis, 17 survived. Of the 100 cases reviewed by Louria *et al.*,[2] only 26 had underlying disease and these included a wide variety of afflictions. Of the latter 26, only 6 survived the infection. Of their own 18 cases, Louria, *el al.*,[2] found that 18 had underlying malignancy; 6 of these died. Eleven of the 18 had meningitis; of the 11, 4 died. Multiple antibiotic agents were used and it was felt impossible to determine which was the most effective. Seventeen of the 18 strains isolated from their cases were sensitive to penicillin and erythromycin, 16 were sensitive to tetracycline, and 14 were sensitive to chloramphenicol. Only four strains were tested against ampicillin *in vitro* and all were sensitive. It was concluded that if penicillin is used in the treatment of listerial meningitis, a regimen of 20 million units daily, given intravenously, should be employed.

Ampicillin[3] proved effective in the treatment of two patients with listerial meningitis; in one, intrathecal ampicillin was tried together with intrathecal hydrocortisone. It was suggested than ampicillin may be the drug of choice in the treatment of listerial infection. The authors state that while the organism is sensitive *in vitro* to many antibiotics including penicillin, tetracycline, chloramphenicol, and sulfonamides, instances of therapeutic failure with each of these agents could be gathered from the literature.

Spilkin, *et al.*[6] reported two cases of L. monocytogenes meningitis. One patient was treated with penicillin and chloramphenicol but did not show improvement until tetracycline was added to the regimen. The other patient, an 87 year old man, had 105 fever and stupor and failed to respond to penicillin, cephalothin, and chloramphenicol together with corticosteroids; he had received but 26 hours of therapy before expiring. Autopsy revealed a purulent meningitis with left frontal lobe abscess. The authors advocated an antibiotic regimen of tetracycline, erythromycin, and streptomycin or chloramphenicol in the therapy of listerial meningitis.

Ford, *et al.*[4] reported six cases with central nervous system involvement. Of these, all showed pre-existing debility; two were receiving corticosteroids, one was uremic, one diabetic, and one had a carcinoma. They were unable to find a source of the infection in any patient. Of interest was that one patient had thromboencephalitis without meningitis; high fever, signs of brain-stem damage, and positive blood culture established the diagnosis. The importance of taking blood cultures was thereby stressed. It has been stated[25] that 40 per cent of blood cultures in listerial meningitis are positive.

Of tangential interest is the sixth case of Listeria monocytogenes endocarditis recently reported by Elston, *et al.*[26] An anti-Listeria agglutinin titer of 1 to 160 developed during the acute phase of the illness; however, after institution of penicillin and erythromycin therapy, the patient became afebrile and the antibodies disappeared from the serum. These authors stress that if the initial laboratory report suggests diphtheroids in blood cultures, one should suspect listerial infection.

In the case reported here, isolation and iden-

tification of the organism was facilitated by the laboratory technician's acumen; she had just successfully identified as Listeria an unknown organism furnished by the state laboratory for proficiency testing!

Summary

A 59-year old diabetic woman was admitted to the hospital with a five-hour history of severe headache. Because of aggravation of pre-existing hypertension, subarachnoid bleeding was suspected. Lumbar puncture revealed cloudy fluid; Gram-stain of the sediment revealed Gram-positive cocco-bacillary forms originally mistaken for pneumococci. She was successfully treated with penicillin alone given intravenously for 14 days. The organism was correctly identified as Listeria monocytogenes by distinctive morphologic and growth characteristics. Literature pertinent to listerial infection, meningitis in particular, is reviewed.

A bibliographic listing of 26 citations will be found in the author's reprints.

234 Fourth Avenue

Dopamine Receptors

Scientists at Yale University's School of Medicine have isolated an enzyme which seems essential to the brain's control of bodily movement. This appears to have significant implications for the treatment of Parkinson's disease.

Drs. Paul Greengard, Gary Petzold, and John Kebabian conducted the research under grants from HEW's National Institute of Mental Health and National Institute of Neurological Diseases and Stroke. Current evidence suggests that the caudate nucleus plays a major role in directing body movements. Dopamine is believed to regulate the activity of the caudate nucleus by interacting with a "dopamine receptor." Abnormalities of the dopamine system in the caudate nucleus are believed to be a major factor in Parkinson's disease. Dr. Greengard's research team has now isolated from the caudate nucleus of experimental animals an enzyme which appears to be the dopamine receptor. Activity of this enzyme is stimulated by extremely low concentrations of dopamine.

Apart from increasing basic understanding of how the brain works, clinical implications of the Yale team's findings are far-reaching. The search for new drugs useful in the treatment of Parkinson's disease has been greatly hampered by lack of a suitable test system. Isolation of the dopamine receptor now makes it possible to carry out rapid testing of large numbers of components for dopamine-like activity and should accelerate the discovery of new compounds for treatment of the disease.

A secondary yield of the research may lie in the treatment of mental illness. Tranquilizers such as the phenothiazines and butyrophenones possess, as a major side effect in patients, the property of causing symptoms similar to those seen in Parkinson's disease. Such unwanted side effects have limited the freedom of physicians to use these drugs. This effect results from their interfering with the action of dopamine on the dopamine receptor. Tranquilizers do indeed interfere with the ability of dopamine to activate the controlling enzyme isolated from the caudate nucleus.

The report of the research team's findings appears in the August 1972 *Proceedings of the National Academy of Sciences.*

Surgery offers helpful possibilities in patients who are prone to pulmonary embolism.

Treatment of Recurrent Pulmonary Emboli

Adrian M. Sabety, M.D., *et al.*
East Orange*

Since the discovery of the embolic nature of the pulmonary thrombus by Rudolph Virchow in 1846, much has been learned about the patho-physiology of the disease and methods of its prevention. The most important has been the discovery and use of anticoagulants. There are, however, a certain number of cases[11] where anticoagulants are either contraindicated or ineffective. In these cases, surgical interruption of the inferior vena cava has been tried. Three methods are generally used: ligation of the inferior vena cava, plication of the vessel, and recently, the use of a serrated clip changing the large lumen of the vena cava into several small ones. A survey of the literature reveals that the indication for and the choice of the surgical procedures are subjects of a great deal of controversy. There is no clear cut indication as to the time when surgery should be preferred to anticoagulation. Some authors[1, 2] report the incidence of recurrent pulmonary emboli to be as high as 7.6 per cent when the patient is fully anticoagulated. Others[3] advocate the superiority of medical prophylaxis over the surgical method of prevention of recurrent pulmonary emboli. Statistics on the results of the surgical procedures generally lack the uniformity necessary to permit a conclusion as to its effectiveness. In view of this, we have made a survey of our cases of prophylactic surgery for recurrent pulmonary emboli. A rigid and uniform standard of indication for surgery and operative technic was adopted in order to remove some of the usual statistical pitfalls encountered when these essential elements are lacking, as the controversies in the literature demonstrate.

Clinical Experience

Twenty-six patients with recurrent pulmonary emboli were surgically treated by us during the last four years. All were on intravenous heparin, 100 milligrams, every six hours and developed recurrent pulmonary emboli. Age of these patients ranged between 31 to 80 years. Fifteen of them were females. All had been recently examined and interviewed by us. Follow-up ranged from six to forty-eight months following operation, with over 50 per cent of the patients more than 12 months after surgery and two patients, over four years. (Table 1).

TABLE 1

Number of Cases	*Duration of Follow-Up*
2	6 to 11 months
14	12 to 23 months
5	24 to 35 months
3	36 to 47 months
2	48 or more months
26	

All were studied with electrocardiography, chest x-ray, enzymes, lung scan, as well as contrast studies when indicated. Once the diagnosis of pulmonary emboli had been established, they all received adequate doses of anticoagulants. If they continued to have pulmonary

*From the Thoracic Cardiovascular Surgical Group of East Orange. Dr. Sabety is Assistant Clinical Professor of Surgery, College of Medicine and Dentistry of New Jersey. Coauthors are Franklyn P. Gerard, who is Associate Clinical Professor of Surgery at the College, John J. Madaras, Jr., M.D., and Charles P. Abbott, M.D.

emboli in spite of this regimen, surgery was undertaken.

Only nine cases presented with hemoptysis as the primary symptom (36 per cent) while 22 patients (88 per cent) complained of chest pain. Tachypnea and tachycardia were present in 23 cases (92 per cent). Signs and symptoms of lower extremity thrombophlebitis were present in 23 cases; post-pelvic operation in 2 cases; and ulcerative colitis in one. Chest x-ray reports were variable. Lung scans were positive in all cases. (Table III).

The number of episodes of documented recurring pulmonary emboli, while on anticoagulants and prior to the operative procedure is shown in Table II.

TABLE II

Number of Recurrences of Emboli	*Number of Cases*
1	1
2	10
3	10
4	3
5	2

Chest x-rays were reported positive in 2 cases, suggestive of emboli in 2 cases, the rest were negative. Lung scan was positive in all these cases in successive examinations. (Table III).

TABLE III

Number of Cases	*Number of Times Lung Scan Positive*
3	3
19	2
4	1
26	

Operative Management

In all but one case in this series, the approach to the inferior vena cava was through a right, retro-peritoneal, muscle-splitting incision, similar to the exposure for lumbar sympathectomy. The vena cava was exposed just below the renal vein, thus avoiding injury to the lumbar veins in the area; a temporary tape was passed around the vessel, and a serrated clip applied. The temporary tape was then removed. Since minimal or no bleeding was encountered in this series, no drain was used. A transperitoneal approach was used, in one case only, in order to ligate the ovarian veins simultaneously.

Mortality

Of the 26 cases presented, two deaths have been recorded in the four years of follow-up One patient, age 80, died four months later of symptoms of a far-advanced carcinoma. Another patient, age 69, died four days postoperative of a cerebrovascular accident.

Stasis Sequelae

Only seven patients (29 per cent) demonstrated significant swelling of the lower extremities. Two of these, ages 51 and 52, improved after four to five months of wearing an elastic support while the remaining five maintained some degree of edema. These latter patients are all between the ages of 69 and 77 with moderate to advanced chronic venous disease of the lower extremities.

Comment

The prevention, diagnosis, and treatment of pulmonary embolism are undergoing noticeable changes. With the availability of radioisotope lung scans and pulmonary angiography, our ability to make an accurate diagnosis of pulmonary embolism has greatly increased. The incidence of pulmonary embolism is reported[4] to be the third most common lung affliction noticed on post-mortem examination. Barring the occasional cases of massive and fatal pulmonary embolism due to silent deep vein thrombosis, this occurrence in the majority of cases should not be considered unpredictable by the physicians nor inevitable by the survivors. Pulmonary embolism, if not fatal, may also cause pulmonary hypertension, congestive heart failure, and other invalidism.

Immobility from any cause predisposes to stasis of venous blood flow in the medium and large-sized veins. It is postulated that such stasis of blood with resultant hypoxia of the endothelial lining of the valve, initiates the formation of blood clots. Immobilization sufficient to facilitate venous thrombosis may

occur during many normal activities such as long car and plane trips, while watching television, prolonged desk work, and so on.

The occurrence of venous thrombosis is common in post-operative and post-partum care, in patients with acute myocardial infarction, in orthopedic surgery of hips and pelvis, in patients on stilbesterol and those on antiovulatory drugs.

To achieve prophylaxis against pulmonary emboli, four main methods are in use:

1. Mobility and activity to prevent venous stasis.
2. Elastic compression of the lower limbs to increase deep venous flow.
3. Anticoagulation and the use of Dextran.®
4. Vena caval clipping.

Although the anticoagulants such as heparin and coumadin derivatives are effective prophylactic agents against the formation and growth of blood clots, the dangers of hemorrhage and/or breakthrough of a thrombus with resultant pulmonary emboli is ever present. Review of the literature[11] reveals an incidence of anticoagulation failure of 2 to 7.6 per cent and surgical failure of 4.8 to 10 per cent. This leads us to believe that perhaps the statistics and the conclusions would be appreciably different if the surgical procedures had the uniformity that this survey contains.[5] The serrated vena caval clip produces totally different types of hemodynamic changes when compared to other methods of surgical procedures. Vena caval ligation leads to a high degree of distal stasis leading to chronic edema of the lower extremities and production of prominent collateral veins. Moreover clots may form in the cul de sac cephaled to the ligature.[6, 7] These two situations may predispose to the recurrence of pulmonary emboli. Such a hemodynamic problem does not present itself when a serrated vena caval clip is used; hence, lack of recurrence of pulmonary emboli in the latter group of cases. The pull out and breakdown of the plication of the vena cava are reported in the literature but are not seen in the cases in which a serrated clip was used since the lumen of the vessel was left intact.[8, 9] All forms of caval occlusion, partial or total, decrease the caval blood flow leading to stasis and edema. If a serrated vena caval clip is used, this situation subsides promptly unless there is an underlying venous disease.[10] Perhaps there occurs a concomitant lymphangitis accounting for the occasional edema.

Summary

1. Twenty-six cases of recurrent pulmonary emboli, refractory to anticoagulants, and surgically treated by means of a serrated vena caval clip are presented.

2. The insertion of a vena caval serrated clip was found to be very effective in preventing recurrent pulmonary emboli whenever the origin of the clots was distal to the point of its insertion.

3. The low operative mortality and morbidity and the favorable long-range result demonstrated by this survey, suggests the advisability of this operation in patients who are embolism prone; or those with thrombophlebitis, as well as those who fail to respond favorably to anticoagulants.

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Basal cell carcinomata lend themselves well to clean surgical excision.

The Surgical Approach to Basal Cell Carcinoma*

John J. Bowe, M.D./Ridgewood

External tumors have long been familiar to the medical profession. The lesion we are here to discuss was for many years referred to as a "rodent ulcer." Multiple agents of destruction have been tried in efforts to eradicate the basal cell carcinoma. These include extremes of heat and cold, electric coagulation and desiccation, chemical escharotics, and ionizing radiation in several forms. A straightforward treatment method is also available: sharp surgical excision. When this is combined with prompt repair, excellent results can be obtained.

Incidence and Distribution

Carcinoma of the skin is the most frequent neoplasm in the United States. In a survey of ten large metropolitan hospital centers, cutaneous carcinomas accounted for 13.3 per cent of all cancers treated. In a five-year study of malignancy admissions at the New York Hospital,[3] 8.2 per cent were for cancers of the skin. In New Zealand, up to 23 per cent of the carcinomas reported were of the skin. Sixty per cent of skin malignancies occur in people over 60 years of age. Pack[6] found the average age of patients with basal cell carcinoma to be 61 years. In 1960, in New York State, statistics revealed an incidence of 26.8 per 100,000 in the male population, and 20.4 per 100,000 in the female population. In the cases studied at New York Hospital, there was a three to one incidence of basal cell carcinomas, compared to squamous tumors.

These growths occur chiefly on the exposed surfaces of the face, neck, and the backs of the hands. They are especially common on the cheeks, ears, and eyelids. In the tumors of the scalp, Conley[2] found the greatest concentration about the temple, almost one-third being in this location. The tumor can, of course, arise anywhere on the surface of the body, but does not originate in the mucous membranes. They are rare on the sole of the foot or palm of the hand. Owen[5] reported 92 per cent of basal cell carcinomas were on the face or hands. About 20 per cent of skin carcinomas are multiple and new lesions may frequently develop.

Pathogenesis

Percival Pott, of fracture fame, observed the seeming relation of scrotal carcinoma to lodgement of soot in the scrotal rugae of chimney sweeps. Arsenicals have long been known to produce skin cancers.

Certain skin types are more prone to develop skin neoplasms. The blonde or sandy-haired type of person with thin, dry skin is susceptible (the so-called "Scotch" or "Irish" skin). Exposure to the elements, particularly sun, is a well-known factor in producing skin change, and "sailor's skin" is a frequent site of carcinoma. Auerbach[1] did a study of the geographic variation in incidence in 10 cities in the United States among whites. He found that the incidence doubled with every 3° 48′ (256 miles) of latitude proximity to the equator. More than 50 per cent of all carcinomas reported in Australia are skin carcinoma.

*Read before the joint session of the Sections on Plastic Surgery and Dermatology, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972.

Melanin pigment acts as a protective barrier to actinic penetration, and this is evident in the pigmented peoples of the warmer regions of the earth. Oettle[4] found the incidence of skin carcinoma in albino Bantus in Africa to be 504 per 100,000, or ten times the rate for whites in the United States.

Pathological Anatomy

The basal cell carcinoma has been described as a small or large, chronic, slowly progressing superficial or deep nodule or ulcer, with a rolled, pearly, and telangiectatic border. The central area may be covered with a crust, which may bleed upon removal. Histologically, there may be strands, lattice work, or glandular arrangements or a solid growth of basal-like cells, arising from the basal cells of the epidermis or dermal appendages. There may be extensive local destruction, which may involve cartilage or bone. It may even destroy a facial feature or organ.

Pickering[7] categorized basal cell carcinomas as:

(1) Cystic basal cell carcinomas;
(2) Pigmented basal cell carcinomas;
(3) Superficial or multi-centric basal cell carcinomas, of hairbearing skin or of hairless skin;
(4) "Iceberg" type of lesion; and
(5) Scarifying or sclerosing type.

Pickering[7] emphasized the difficulty in encompassing the multicentric tumor of hairbearing skin, and also the very aggressive scarifying type. He indicated that the nasolabial angle was the commonest location for the "iceberg" variety.

Surgical Treatment

While some basal cell carcinomas apparently respond to a variety of therapeutic modalities, there will always be some recurrences of persistent tumor cases. The rationale of treatment should embrace a study of the removed material. This is accomplished by sharp removal of the lesion. Blind destructive methods do not afford this information, and as a philosophy of treatment are therefore less sound. Most small to medium-sized lesions can be excised and repaired under local anesthesia in the outpatient surgery. Larger lesions and those with deep destruction pose greater problems, but these also lend themselves to excision and plastic surgical reconstruction and repair in most instances.

The extent of tumor margin will vary with the surgeon's estimate of the neoplasm's potential. Olsen, and also Sundell,[8] agreed that for basal cell carcinomas, margins of 5 millimeters should be adequate on facial lesions, and 10 to 20 millimeters on the extremities and trunk. They were more radical in squamous lesions. Peripheral sampling of specimen by the surgical pathologist can be done in most hospitals at the time of surgery, by frozen section. Probably a more accurate study will be obtained by permanent sections, if the specimen is well-organized and appropriately marked. Certainly any dubious areas can be reported upon while the patient is in the operating room. Occasionally, reoperation with wider removal will be necessary because of findings in permanent sections, but with good clinical appraisal and margin, this step should be infrequent.

That tumors arise on such important features as eyelids, nose, or ears is not a reason to avoid surgery. Indeed, I believe surgery in such circumstances offers superior results to other methods of treatment. (See Figures) Simple excision and repair is certainly most commonly employed. Excision with repair by free graft, either whole-thickness or thick-



Figure 1—Large basal cell carcinoma—left lower eyelid and cheek, deeply involving tarsus and obstructing vision.



Figure 2—Extent of surgical resection—full thickness of lower eyelid taken.



Figure 3—Large cheek flap planned and executed.

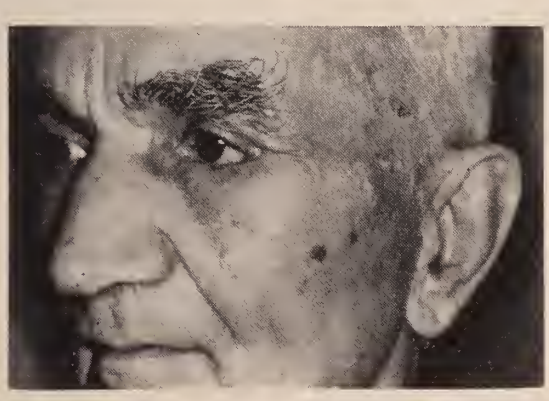


Figure 4—Six weeks postoperative—immediate eyelid reconstruction at the time of tumor surgery.

split, is the next most useful surgical tool. Some cases will lend themselves to direct flap repair, and others will require secondary reconstruction.



Figure 5—Several month post-surgery

Occasionally, especially in very aggressive and recurrent tumors, or where there is a problem with margin of excision, a delay before reconstruction may be wise. In basal cell carcinomas, this is infrequent, but may occur, especially in those which have changed to base-squamous nature. An interval of six months to a year should be given in such cases before reconstruction, if there is doubt in the surgeon's mind about tumor clearance.

Summary

Basal cell carcinomas lend themselves to surgical excision and repair. These tumors have been clarified and their nature discussed. Representative cases have been illustrated and discussed.

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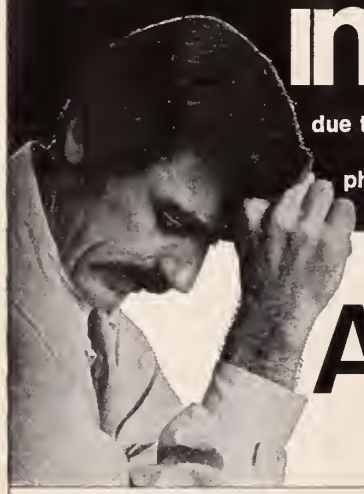
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Treatment of Baldness by Hair Transplantation

Robert Auerbach, M.D. and Hillard H. Pearlstein, M.D./New York

Hair transplantation is actually autografting of composite skin grafts with hair-bearing follicles. These grafts are donor dominant. Success of the procedure depends upon the fact that they *are* donor dominant. This means that the hair follicles, when moved from the original location to another area, continue to maintain the characteristics they had in the donor site. Specifically, they continue to grow a full thickness terminal hair.[1] Male-pattern alopecia commonly affects certain areas. The hair loss occurs when, at a genetically predetermined age, the hair follicles in those areas develop a sensitivity to normal amounts of androgen, and cease to produce hair shafts. When hair follicles are moved from an area of the scalp that does not have this sensitivity in response to the normal circulating androgen the hair will grow in the normally male-pattern alopecia areas.

Selection of patients is based on a simple principle: the patient should have significant hair loss so that 4 millimeter grafts of growing hair in the recipient sites will produce a significant cosmetic difference. Donor sites from posterior and lateral areas of the scalp, should have hair thick enough to make transplantation worthwhile. These criteria comprise a description of male-pattern hair loss in many patients. Patients with scarring alopecia from burns, accidents, surgery, traumatic scars, and radiation can also be helped with hair transplants. For these patients, the hair transplants seem to take effect as long as there is sufficient blood supply so that there is a viable scar. The general rule seems to be: if there is no gangrene the hair transplants will take. However, in all patients with scars—of whatever etiology—we usually place test plugs before proceeding with the entire procedure.

Hair transplantation is an office procedure. We use 2 per cent lidocaine with 1 to 100,000 epinephrine as a local anesthetic. The donor area is anesthetized, as well as the recipient area. Following this, the hair is clipped short in the donor site. Isopropyl alcohol is an adequate topical cleansing agent. Using a short-handled, simple 4 millimeter circular dermatology punch, plugs of bald skin are removed from the recipient area. The hairline should never be placed too far forward; one can always move the hairline farther forward, but the plugs and the growing hair are permanent and cannot be removed without leaving a scar. Transplants should never be put into the temple area since this could result in a bizarre appearance. A common request from patients is for a hairline further forward than is normal; that this is not desirable must be explained to the patient. We usually draw a hairline with tincture of Metaphen® before starting to cut. Of course, there are many patients for whom placing a hairline is not necessary; merely filling in the bald area on top of the scalp, or thickening an existing frontal hairline or thickening the hair in the mid-frontal scalp may be sufficient.

*Read before the joint session of the Sections on Dermatology, and Plastic Surgery, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972. Dr. Auerbach is Assistant Clinical Professor of Dermatology at NYU School of Medicine, and Dr. Pearlstein is Assistant Clinical Professor of Dermatology at Mt. Sinai School of Medicine, New York.

With the same punch, plugs of skin are removed from the anesthetized donor site. One must be careful in both sites to punch into the fat. The plugs are pulled out with a pair of forceps. After the plugs are removed, bleeding is controlled by firm manual pressure. If any donor sites bleed persistently, or have small or large arterial "pumpers," they are immediately sutured with 2-0 silk sutures.

A pressure dressing is applied to the patient's head. The plugs are cleaned by gently shaking them in normal sterile saline solution. Each plug is then carefully rolled on sterile gauze in a Petri dish, moistened with normal saline, so that the sides can be examined and any loose hair removed. This is essential to insure that a foreign body reaction and/or infection does not occur. Actually, an infection in transplants is extremely rare.[2]

Following this cleaning, the plugs from the donor site are placed in the recipient areas. Before placement, the direction of hair growing in these areas must be noted and the plug inserted so that its hairs are growing in the same direction. The direction of hair growth in the donor plugs can be determined by looking at the stubs of hair protruding from each plug. The plugs from the recipient site have no viable hair follicles and may be discarded. (Actually, some researchers use these as a source of human skin.)

It is essential that a small amount of bleeding take place when the plugs are put into the recipient sites. A clot between the recipient skin and the plug is necessary for the plug to take. An air space is not conducive to a good "take." Since the base of each plug contains some fat (as mentioned above, it is necessary to leave some fat present since the hair follicles can penetrate into the fat), much of the vascular supply to the grafted plug probably enters from the sides. The very thin clot on each side permits the growth of these new blood vessels. Bleeding is entirely controlled at this point and is usually begun again by the manipulation of placing the plugs.

After the plugs have been placed as flat as possible, which is usually perfectly flat in relation to the surrounding skin, and hemostasis is assured, the dressing is applied. Our usual procedure is to apply a neomycin or gentamicin ointment or cream on a piece of Telfa®. This is then placed on the recipient and donor sites and held in place with a elastic bandage in the donor sites only, and a Kerlix® dressing in both sites. Thus, the Kerlix® dressing goes over the elastic bandage in the donor sites and over the Telfa® in the recipient sites. Hemostasis is usually more of a problem in the donor sites and the elastic bandage provides some assurance that bleeding, which should be completely controlled when the patient leaves the office, does not start again. It is unwise to use the elastic bandage in the recipient sites since the pressure of the bandage might twist some of the plugs. The patient leaves the office wearing a white turban bandage. It is rare for the patient to experience bleeding after he leaves the office. Bleeding is best avoided by placing a suture in a donor site that shows any evidence of arterial bleeding or persistent oozing.

The patient can remove the dressing himself the next morning. To prevent the dressing from adhering to the surgical sites, it should be removed in 24 hours. If the patient wishes, he may return to the office and we will remove the dressing. The clots that form should not be cleaned for several days. The patient is instructed not to shampoo for five days, and then to shampoo very carefully. Vigorous exercise is prohibited for one week; swimming and diving are prohibited for two weeks. Surprisingly, post-operative pain is unusual. Analgesics are not routinely prescribed. If a patient requests an analgesic due to previous poor experience with post-operative pain, codeine 30 milligrams with 600 milligrams of aspirin every four hours can be prescribed. If the patient merely asks about post-operative pain, he is told that he will probably need nothing more than aspirin. In the unusual instance when a patient does complain of post-operative pain, he should be seen immediately, since it is a rare occurrence and may indicate a post-operative complication.

Postoperative Complications

Probably the most common complication is edema of the forehead from the surgical trauma of the frontal scalp area. The edema can be severe enough to cause swelling of the eyelids. However, we have not seen complete shutting of the eyelids due to swelling.

Infection is a very rare occurrence and should be treated as any other wound infection, i.e., by removal of any sutures, adequate drainage if necessary, hot compresses, culture and sensitivity, and antibiotics.

Post-operative pain, as discussed above, is rare. The patient should be examined and any post-operative problem should be corrected. Appropriate analgesics can be prescribed.

Late post-operative complications include venous ectasia of the donor areas. We have seen several patients who have a tendency to form two to ten millimeter balloonlike, soft spongy nodules that empty very easily on pressure and do not pulsate. Our clinical diagnosis is that these are large, dilated venous vessels. They have developed either at the time of, or after transplant procedures. There does seem to be individual susceptibility to the development of these venous ectasias. They usually clear up gradually; however, a few do not. They can be treated by the insertion of a 2-0 chromic suture. The inflammation that occurs during the absorption of the suture will very often cause fibrosis of the venous vessel. While the suture is in place it should be checked once or twice a week. This is probably the most common significant post-transplant complication, and occurs in perhaps one out of 500 transplant patients.

We have seen a single instance of keloid formation in one donor site in a Caucasian patient. We have done many Negro patients and among them, have not encountered any keloids. However, the procedure in Negro patients is to place three or four transplants in inconspicuous areas, allow them to heal, and have hair growing in (which takes two to four months) before proceeding with the complete transplant procedure.

Elevation or an uneven surface in the recipient area will occur in some patients. This can usually be alleviated by electrodesiccating the surface. However, this should not be done until at least six months have elapsed after the transplant procedure, since many cases of this elevation, or "cobblestoning," will resolve spontaneously.

Repeat-Transplant Procedures

The crusts come off spontaneously in ten to twenty days. New grafts can be placed in an area surrounding old grafts in approximately three to four weeks. At any time after the first procedure, grafts can be placed in a new area. If one is filling in the frontal area, as well as the top of the scalp, it is possible to place grafts in both areas within the same week. Grafts should not be placed next to each other on the same day, since one is then not doing 4 millimeter punch grafts but, in effect, much larger grafts. There should be normal surrounding skin on all sides of the graft. These areas can be filled in at a later time (in three to four weeks) with the hair-bearing donor plugs. Only in the hairline, the front line of plugs, would one put grafts next to each other. Hair transplant procedures are continued until the bald area has achieved an adequate thickness of hair. Even the more severe case of male-pattern hair loss can have all the grafts placed in three to four months. The patient does not have to miss more than one half-day's work for each transplant procedure. Total office time for each transplant procedure is one to two hours.

It must be remembered, and explained to the patient, that the hairs actually present in the transplant plug at the time of the transplant procedure will fall out. These hairs go into the telogen (hair-loss) phase of the hair cycle due to the trauma of the surgical procedure. Then the same hair follicles go into the anagen (growing) phase of hair growth and grow new hairs in two to four months. Thus one is transplanting not hairs, but plugs of skin that contain several viable hair follicles. These new hairs will grow at the rate as in their original location and they will have the

same characteristics of color, texture, etc., as the donor site. Once the new hair has grown in, it lasts as long as the hair from the donor site (usually the back of the scalp) and this is almost always a lifetime. It can be cut, groomed, shampooed, colored, straightened, curled, etc.—just as any other hair.

The final results depend largely on the density of the hair from the donor site: the more dense this hair is, the more dense will be the hair in the recipient site. It is impossible to predict exactly how thick this will be but we have never seen a patient who showed no hair growth at all.

The principle for this procedure is based upon the movement of hair follicles, and these must be handled carefully so that follicles are not removed from the graft or damaged in any way. Patients should be cautioned not to disturb the grafts in any way for the first two weeks; they should not pick at them, and if they think there is a problem they should immediately call the physician.

The number of plugs moved in any one session depends upon the characteristics of the scalp being treated. In the large bald areas one might transplant as many as 50 plugs in one session; however, one must be certain that the area is sufficiently large so that these plugs will not be next to each other, but distributed in a checkerboard pattern, as implied above. When these have healed in four weeks or longer, one may go back and fill in the existing bare areas with more transplant plugs.

After the hairs have grown in completely it may be advisable for the patient to return for a few fill-in plugs in areas that may still have three to four millimeter sections of baldness. In that way the most natural appearance of thickness can be achieved.

Conclusion

A hair transplant procedure using 4 millimeter plugs of skin is a simple, cosmetic method for replacing hair in any bald areas due to any cause. The success rate is almost 100 per cent.

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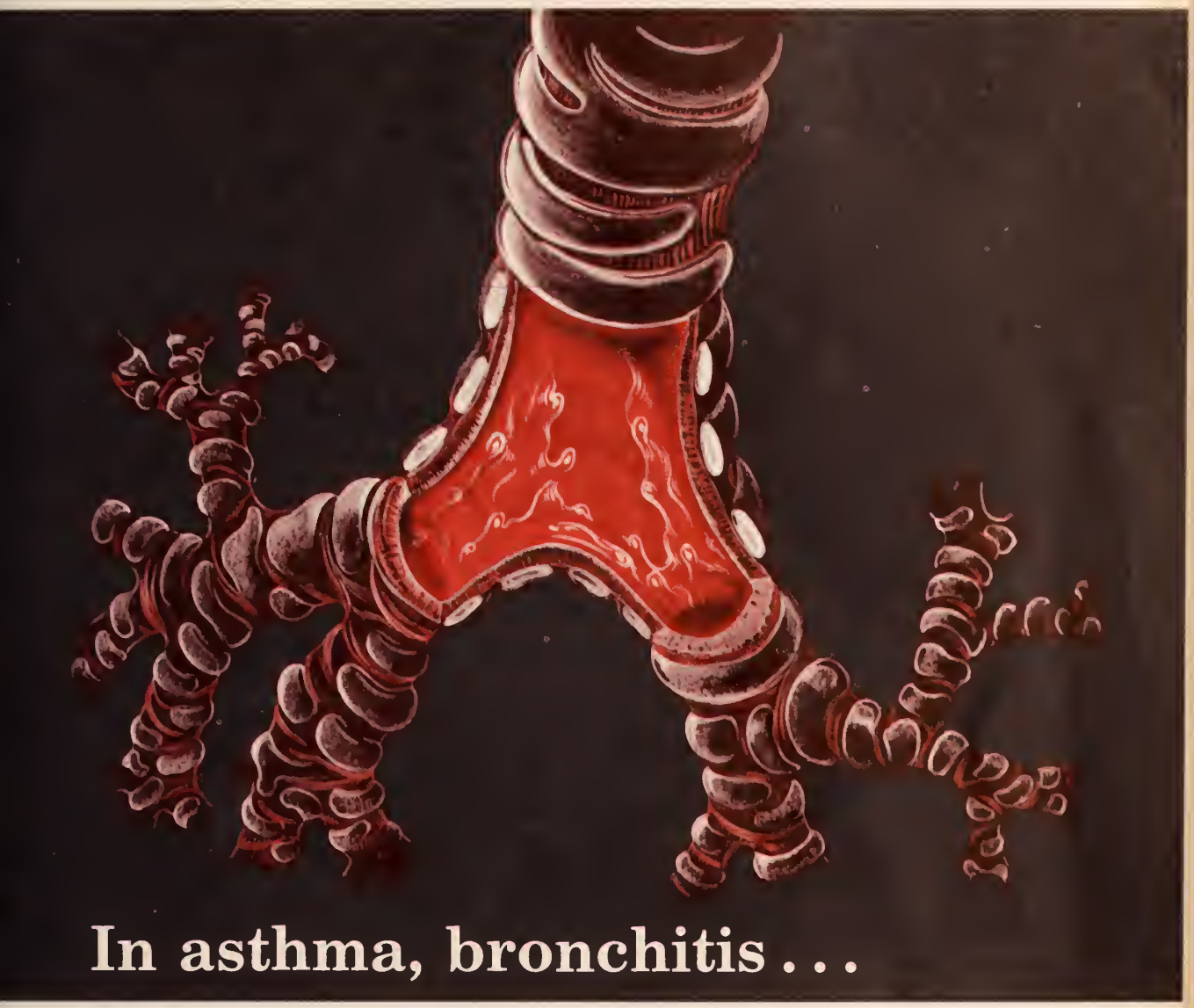
Through the Eyes of the Schizophrenic

The world as it is seen through the eyes of a schizophrenic and a review of the probable causes and treatment of the disorder highlight a pamphlet recently released by the National Institute of Mental Health. Directed to readers without professional training, the booklet, *Schizophrenia—Is There an Answer?* gives qualified explanations of some of the issues.

Drawing on the actual experiences of patients, described in their words, the booklet conveys something of the despair, sense of unreality, fear, and loneliness that confront a schizophrenic individual. An opening section briefly describes the history of the illness and what is known currently about causes—the influence of genetics, family, environment, and biochemistry. Common treatment technics are reviewed. The booklet closes with a discussion of the prospects for understanding schizophrenia in the coming decade and the outlook for individuals who are now victims of this prevalent mental disorder.

Single copies of *Schizophrenia—Is There an Answer?* (DHEW Publication No. HSM 72-9070) are available for 20¢ from Public Inquiries, National Institute of Mental Health, Room 15C-17, 5600 Fishers Lane, Rockville, Maryland 20852.

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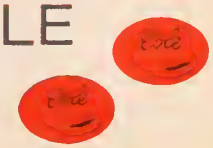
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While not yet the ideal procedure for prostatectomy, cryosurgery has some advantages in the patient who is a poor surgical risk.

Cryosurgical Prostatectomy*

Charles E. Bellingham, M.D., and Maxwell Malament, M.D.†
East Orange

Since the innovation of cryosurgery of the prostate, by Gonder and Soanes[1] in 1964, various aspects of this procedure have been explored and evaluated. Experiences of other urologists appear to indicate that cryosurgery is not as efficacious as other methods of prostatectomy.[2 to 6] However, it has been found to be indicated in the elderly, debilitated patients, and those considered to be a poor risk for any type of surgery.

The effectiveness of cryosurgery relies on its ability to destroy prostatic tissue mass without interfering with adjacent anatomic structures. Various theories have been suggested for the mechanism of cellular death. These include (a) dehydration and a toxic concentration of electrolytes, (b) denaturization of protein substances within the cell, (c) crystallization and rupture of cellular membranes, (d) vascular stasis resulting in cell death, and finally (e) cellular death attributed to "thermal shock."

It has been shown[7] in experimental work that after sloughing of necrotic tissue, the remaining prostatic tissue loses its ability to form secretory granules. Also, there is evidence of squamous metaplasia in the area previously subjected to the freezing temperatures.[8, 9, 10] Net result is a decrease in both volume and size of the prostate.

The results at this hospital of thirty-one patients who have undergone cryosurgery will be here presented.

Technic

Cryosurgery of the prostate gland is performed transurethrally. The Linde cryosurgical unit[11] type CE-4 has been used in this study. Prior to the insertion of the intraurethral probe, cystoscopy is performed and the intrusion of prostate tissue into the urethral canal as well as the elongation of the prostatic urethra is noted. After cystoscopy, a #24 F Robinson urethral catheter is passed into the bladder and the remaining urine is evacuated. The bladder is distended with 250 to 300 cubic centimeters of air and a cystogram is made to verify the presence of the air-filled bladder. Immediately on removal of the urethral catheter, the cryosurgical probe is passed into the bladder. Thermocouples are positioned in the fascia between the rectum and prostate, and in the prostate itself. The forefinger of the left hand is inserted in the rectum and a small round metal knob on the probe is palpated. It is positioned just distal to the apex of the prostate. The cryosurgical probe is slightly depressed distally, allowing the vacuum tip to be lifted away from the trigone. The next step is to lower the temperature to *minus* 160° C. Depending upon the previously noted gland size, thermocouple temperatures, and rectal wall fixation, the freezing temperature is lowered from three to twenty minutes. During the procedure, the thermocouples are carefully checked and should the temperature of the thermocouple located between the rectum and prostate decrease to minus 10°C, the procedure is immediately discontinued. The rectal mucosa is occasionally palpated and should remain

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†Deceased

freely movable. Fixation of the mucosa is an indication of excessive freezing. After adequate freezing time, the probe is heated electrically and then removed. A Foley catheter is immediately inserted and left indwelling.

Initially spinal anesthesia was used. However, it subsequently was noted that the procedure was well tolerated under local anesthesia using xylocaine jelly as topical anesthesia in the urethra and 5 to 10 milligrams of Valium®, intravenously, for operative sedation. Eleven patients have had the procedure under local anesthesia.[12] Rectal adnexal temperatures varied between 32°C and minus 5°C while the prostatic thermocouples varied between 3°C and minus 60°C.

Results

At this hospital, 31 patients ranging in age from fifty-one to eighty-five years underwent prostatectomy using the cryosurgical technic. This included 12 patients with prostate cancer and the remaining 19 with benign hypertrophy of the prostate gland. Twenty were considered poor risk patients for any surgical intervention. This criterion was based upon preoperative medical consultation and validated by severe medical diseases increasing patient risk (Table 1). This included marked hypertension, coronary artery disease, four with prior myocardial infarction, congestive heart failure, chronic lung disease with severe impairment of pulmonary function, diabetes requiring insulin control, and chronic renal failure. One patient had an intracardiac pacemaker. Sixteen patients had blood urea nitrogen levels ranging from 22 to 120 mg. per cent. The remaining fifteen were within normal limits. Only two patients had sterile urine prior to cryosurgery. Postoperatively all patients had bacteriuria with colony counts greater than 100,000 on repeated cultures during the first month. This has been related to the slow slough of necrotic tissue from the prostatic fossa.

Table 1

MEDICAL STATUS				
	POOR RISK		FAIR RISK	
DISEASE	B.P.H	Ca	B.P.H	Ca
CVA	1			
ARTERIOSCLEROTIC HEART DISEASE	4	2	4	4
MYOCARDIAL INFARCTION	1	2		
HYPERTENSIVE HEART DISEASE	4	1		
EMPHYSEMA	2			
DIABETES MELLITUS	3			1
METASTATIC Ca		1		
CIRRHOSIS			1	
TOTAL	15	6	5	5

Three patients had previously undergone a conventional prostatectomy, one an open procedure and the remaining two had transurethral prostatectomies.

Eighteen patients were in urinary retention due to prostatic obstruction as noted by cystoscopy and required urinary catheter drainage preoperatively. This consisted of 11 patients with prostate hypertrophy and seven with carcinoma of the prostate.

The Foley catheters were removed between the seventh and tenth days postoperatively. One patient required reinsertion of the catheter and its final removal was delayed until the forty-first postoperative day.

Postoperatively our results were graded upon residual urines performed two to four days after removal of the catheter. Those classified as "good" retained less than 30 cubic centimeters, while a "fair" result varied between 30 and 100 cubic centimeters. Residual urine above this was considered a poor result. There were seventeen (55 per cent) who were classified as good result and four (13 per cent) who had fair results and six (19 per cent) were felt to have a poor result. Four patients (13 per cent) died during their hospitalization (Table 2).

Table 2

POSTCRYOSURGERY RESULTS*			
	RESIDUAL URINE	NO OF PATIENTS	%
GOOD	0 – 30 cc	17	55 %
FAIR	30–100 cc	4	13 %
POOR	> 100 cc	6	19 %
TOTAL		27	87 %
	* MORTALITY	4	13 %

Although the mortality was 13 per cent it must be emphasized that the four patients were initially considered poor surgical risks. In only one patient was the cause of death attributed directly to cryosurgery. In this case necrosis of the trigone, ureterovesical orifices, and bilateral ureteral obstruction contributed to septicemia, and pneumonia on the 7th postoperative day. The other causes of death were vertebral collapse from prostate cancer metastases to the spine, and congestive heart failure secondary to arteriosclerotic heart disease.

The next most perplexing postoperative complication has been slough obstruction (Table 3). This has been due to large pieces of necrotic tissue remaining partly attached to the wall of the prostatic urethra, or sloughing into the bladder but because of their large size are unable to be passed spontaneously. This required endoscopic removal in four (15 per cent) patients.

Table 3

		B. P. H.	Co
AGE	50–59	2	
	60–69	6	
	70–79	10	10
	>80	1	2
TOTAL		19	12
Anesthesia	Spinal	11	7
	Topical	8	5
Slough Obstruction		3	2
Postoperative Incontinence		1	1
Epididymitis		2	–
Prior Surgery		–	3
Mortality		3	1

In three patients it was noted that postoperatively there was partial obstruction from a large middle lobe which was still viable. This required a subsequent transurethral resection in two patients. Stress incontinence was observed in three patients although this complaint subsided completely after three months in one case. There were two cases of epididymitis, both of which resolved on conservative management. Bleeding in all cases was considered minimal and no patient required a postoperative transfusion.

Discussion

Cryosurgery of the prostate has been lauded not as a replacement for the more common methods of prostatectomy but for its use in the poor risk patient.[3, 6, 13] Our findings agree with this, since the convalescent period after cryosurgery is more prolonged than that of conventional methods of prostatectomy. Rouvalis,[12] presented its use in 299 patients using local anesthesia. Sixty per cent of these patients were considered unfit for conventional excision. Gonder,[14] and Dow[6] have noted its effectiveness in patients with bleeding dyscrasias. Many of these patients would have sustained excessive blood loss with other surgical methods. Jordan,[13] in a series of 70 patients noted an average blood loss of 20 cubic centimeters with extremes of 1.6 and 57 cubic centimeters.

The patient may be ambulated the day of surgery which minimizes postoperative complications associated with prolonged bed rest. There is little need for more than mild analgesic agents postoperatively as non-narcotic analgesics have proved adequate.

Certain drawbacks inherent to prostatic cryosurgery have been noted. Slough obstruction has necessitated a second endoscopic procedure. To eliminate this both local bladder instillation and systemic use of enzyme preparations have been employed but this has been unrewarding. Some authors have performed a "partial transurethral resection" during the cryosurgical prostatectomy but this does not seem to influence the final success rate. Bladder necrosis has occurred and is probably secondary to probe placement. If the probe is not elevated away from the trigone, this area of the bladder could easily become involved in the freezing process. Similarly the

close proximity of the ureteral orifices to the bladder neck could result in their necrosis. Incontinence, hemorrhage, bladder perforation, and Gram negative sepsis have been described as postoperative complications and should be considered in all patients as very real possibilities. Other less serious complications include epididymitis, penile edema, and stress incontinence.

Summary

The experience with 31 patients undergoing cryosurgery of the prostate has been summarized. It is believed that cryosurgery has added another dimension to prostatectomy. It has been shown to be an effective procedure but the complication factor and prolonged postoperative course relegate its use to the poor-risk patient who is unable to tolerate the insult of anesthesia and the conventional prostate operations.

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Veterans Administration Hospital

Medicare by M.D. Assistants

The American Medical Association supports legislation that would expand the circumstances under which Medicare payment could be made for services of physicians' assistants.

Payment now is permitted only when the assistant performs the services in the physicians' presence. Under an amendment offered in the Senate to H.R.1, such payment would be allowed where the assistant performs the services without the physician being present. However, an assistant would not be allowed to practice medicine autonomously or without supervision of his physician employer.

In a letter to Senator Gaylord Nelson (D-Wis.), sponsor of the physician's assistant amendment, Ernest B. Howard, M.D. AMA executive vice president, said: "We believe the amendment to be salutary. The AMA is fostering the development of appropriate programs to increase the number of physicians' assistants. Their role can be a valuable one in helping to meet our health manpower needs. In rural settings, for instance, the assistants may serve in communities or areas removed from the physician's office. The Medex program is one example of the assistant serving to extend the physician's services into adjoining areas. While delineation of the appropriate role of the physician's assistant, as well as appropriate criteria for certification are now under formulation, and many programs are in the development stage, we believe your amendment will provide stimulus to the expanding acceptance of these programs."

Some thoughts for the physician before he cops out on these problems.

The Adolescent Patient in the Psychiatric Hospital*

Robert S. Garber, M.D./Belle Mead

Adolescence, someone has written, is tough on everybody. It is tough on the adolescent himself, on his family, and on society. The difficulties that every adolescent and his family have to cope with can be very painful. But how much more painful and disconcerting it is for everyone concerned when there is need to hospitalize an adolescent for psychiatric treatment.

From the parent's point of view, this is particularly distressing. He sees his adolescent son or daughter as himself reincarnated, but developing in a confused, nonproductive, nonresponsive way. The psychiatrist hopes to become involved with the young patient in such a way that he will help provide some stability and meaning in an environment that has become overwhelmingly burdensome. Let me review briefly some of the kinds of problems and illnesses affecting young people that we in psychiatry are seeing these days. Diagnostically, these problems run the complete gamut: anxiety, depression, mania, schizoid and schizophrenic illness, psychosomatic disorders, perversions, alcoholism, all manner of drug abuse—dependence and addictions—and behavior disorders.

Tension and anxiety are common. While the adolescent may attribute them to physical causes or to external pressures, in actuality, these may be associated with a grim and unrelenting attempt to measure up to the excessively high standards of the young person's ego ideal in order to maintain self-esteem. If the gap between personal or parental standards and actual performance is too great, the results can be a depression. Mood changes, and especially depression, are also likely to follow other kinds of disappointments—in one's peers, in one's parents, in one's ideals. Bursts of vigorous and even violent activity may alternate with apparent laziness or inability to work or study. A very common sign of aggression turned against the self is the high adolescent suicide and accident rate from the combined activity and self-punishment at this age.

Another group of adolescents—and even preadolescents, for that matter—seek a solution or an escape in experiments with glue-sniffing, marijuana, or even "hard" drugs. If it persists, this leads to increasing disengagement from meaningful relationships: the young person tunes himself out. He usually rationalizes his behavior by saying it is a means of discovering his real self and the true meaning of life.

Many adolescents' problems reflect disturbances within their families. For the painful but necessary separation of adolescents from their nuclear families to occur, the young person has to give up some of his dependency on his parents. This is usually done by the angry rejection of the parent of the same sex—often manifest by open hostility and certainly by disenchantment with the values, attainments, and restrictions of the older generation. This, of course, sets in motion a counter-reaction from the parents—partly from resentment at being challenged, partly because the rebellious adolescent evokes the conflicts from the

*Delivered at the Fifth World Congress of Psychiatry, December 3, 1971, Mexico City.

parents' own adolescence that had long been repressed. It is for this reason that even the best-intentioned parents often find it difficult successfully to empathize with their teen-age sons and daughters. Indeed, the adult community in general has trouble in being sympathetic, so that adolescents are more commonly scapegoated than any other age group. Professionals—and here I have to include psychiatrists—are not immune from this. The adolescents' preoccupation with themselves, their burgeoning sexuality, and especially their negativism, cast them easily into the scapegoat role. Middle-aged psychiatrists, even more than middle-aged parents and teachers, cannot afford the understandable irritability and impatience that beset an adult challenged by living reminders of old conflicts. Santayana once said he wouldn't mind repeating his youth were it not for all those trap doors!

The adolescent psychiatric patient thus presents problems, regardless of how we conceptualize this. Those of us who are hospital psychiatrists are particularly concerned with such problems because we are admitting so many more adolescents now than we did ten years ago. We must deal with runaways, sexual acting-out, drug problems including the bringing of drugs into the hospital, negative encounters with adult patients who are sometimes seen as parent figures, anti-social and dissocial behavior patterns, alcoholism, depression, pre-psychotic and psychotic behaviors, as well as mixtures of these behaviors. We must also be prepared to deal both medically and psychologically with the untoward effects of drugs taken prior to and during hospitalization.

The family also is faced with problems when a decision is made to hospitalize an adolescent member. One of these problems is just accepting the fact that their offspring is deviant from the rest of society. The financial problem may be a major one if the family does not have adequate health insurance coverage or other resources. Consideration must be given to the amount of sacrificing the family should undergo for one child if there are other children whose future is a concern. The family must also give some thought about what hospitalization can be expected to accomplish.

Each hospital has its own way of dealing with the problems that the adolescent presents. I should also like to point out the importance of early intervention if we expect to achieve a good result. The psychiatrist may be inclined to postpone the decision to hospitalize, but my experience suggests that delay may be harmful to the patient.

The hospital must have the necessary physical plant to deal with the special needs of the adolescent. There must be increased recreational facilities, and there must be classrooms, for education should be continued so that the young person can keep up with his age mates as far as possible. There must be suitable meals to provide the necessary energy that the adolescent so readily burns up.

The question of whether adolescents should be housed separately or housed on the same wards as adult patients is still being debated. The adolescents' frequent anti-social behavior—forming ward gangs, destroying property and so on—makes the problem of managing them on any ward very troublesome. Staff apprehension on an adult ward is relieved when there are separate facilities. On the other hand, mixing adult and adolescent patients on the same wards has some advantages for both the staff and the adolescent himself. Norton,[1] describing an inpatient unit in Chicago that mixes children, adolescents, and adults, cites several advantages that he and his colleagues have observed in this kind of arrangement. He notes, for example, that the presence of adults, even though they may be passive and inert, often acts to diminish the aggressive acting out of the adolescent by preventing contagion and circular stimulation. Another advantage is that a mixed unit may help to remove some of the special stigma and feeling of desertion the adolescent experiences when he is hospitalized. He sees adults who are parents, teachers, physicians, and so forth—all with problems. The important step of beginning to be able to forgive the parent and recognize him as a human being is often ex-

pressed by understanding that the adult roommate is not really evil but may himself be troubled.

We need staff members with whom the adolescent can readily and willingly identify. There must be consistency, within the staff, in dealing with unacceptable behavior. A structured therapeutic community whose limits are carefully set thus forms the framework within which the adolescent can learn by trial and effort successfully to relate to society.

Parents must be involved in the treatment program. Remember that one day the patient will leave the hospital and will probably return to his previous environment. Steps must be taken on both sides of the fence to increase the likelihood that the illness will not recur. The parents must be made to understand that while they are involved in the patient's illness, it is not particularly useful or necessary to blame themselves for it—that the child has had many other significant influences during his life. However, they must also realize that for a meaningful change to occur in the child, they themselves must be part of the change. The parents should also be taught to help alleviate the stresses that the youngster will encounter in the future. By supporting him in his realistic endeavors they reduce his fears, and by helping him to avoid situations that are fraught with fear and anger they reduce the stresses on him. Middle-class parents often have to learn how to restrain their social, educational, and vocational demands on their child. By reducing the pressures on him they will help ease his own demands on himself.

Treatment modalities including individual and group therapy, drug therapy, and electroconvulsive therapy for schizophrenic and severe depressive disorders should be available. Occupational therapy should be expanded to include vocational training programs such as cooking, electrical appliance repair, and shop work, as well as various task-oriented group projects. If there is space and manpower available, automotive repair work should be considered. This may help maintain the interest level of the young "know-it-all" who will pooh-pooh the ordinary "artsie-craftsie" type programs. Leather skills, if they include things such as the new-fashion fringe bags, can excite a whole group of young people. The music therapist must also keep in step and add rock and soul music to the programs and, if necessary, have separate adult and adolescent sessions so that neither bug the other. Psychodrama has been found effective in many areas. Role-playing has been used in conjunction with staff and patients and staff and relatives of adolescents. In a hospital in St. Louis, a workshop on "Communication with Parents and Adolescents" uses role-playing and listening to tapes of their own patterns of communication; it has been found helpful. A number of hospitals, with the available equipment, have utilized video-tape technics with great success.

What is the most effective way of dealing with the adolescent and his problems? I wish I had some tried-and-true answers, but I do not. In the hospital setting most of us prefer to use psychoanalytically-based psychotherapy rather than orthodox psychoanalysis, which requires more time than is available to most of our patients.

Rather than dwelling on the past, and thus giving the adolescent the opportunity to use the past as an excuse to continue his irresponsible behavior, we believe it is most beneficial to deal in the here-and-now. With the beginning of psychotherapy, the therapist attempts to establish contact by understanding the meaning of the patient's behavior and especially of his defensive maneuvers. He then interprets these maneuvers in terms of their current unconscious meaning rather than their historical context. To put it another way, the therapist attempts to understand the emotional message the patient is trying to convey by his behavior; then he reads it back to him. This establishes the therapist's interest and competence and tends to overcome the adolescent's suspiciousness. Masterson[2] believes that the cornerstone of all therapy with adolescents is telling them what they feel, rather than expecting them to tell you, and then responding appropriately to the patient's

response. Since the messages are as varied as the number of patients we see, the therapeutic responses also vary. They include interpretation of the unconscious, direction, support, limit setting, interference with parents, destructive behavior, and interested silence. If the therapy is successful the patient will learn that he can fulfill his needs by behaving in a responsible manner. He learns that he is able to give and receive love and that once he behaves in a responsible manner, he will have—perhaps for the first time in his life—a sense of self-esteem.

Aftercare is another important consideration. Thought should be given to what is going to happen to the patient when he is discharged—as soon as he enters the hospital! A detailed plan must be formulated. It may be necessary to be in contact with the school system to arrange for reduced or special educational programs that can ease the anxieties and stresses of the patient. In some situations it may be considered best for the young patient that he not return home. Perhaps living with relatives will be more suitable, or placement in a half-way house or residential school can be arranged. Perhaps the kind of vocational program begun in the hospital can be continued. There are many possibilities, but it takes a specialized staff and considerable time and effort to make use of them to the young person's best advantage.

The problem does not end with discharge from the hospital. All of us—and I mean not only the parents of adolescents and the professionals who treat them, but society in general—must learn what preventive efforts we can undertake to ease the pressures on the young and enhance the quality of life for all of us. This is probably one of the greatest challenges that faces us today. We must make the necessary changes in areas where we know change is needed. And as each new generation is exposed to new problems brought about by an evolving technology and other influences, we will need to figure out not only how to keep abreast but to try to move a step ahead.

This is an area fraught with difficulty, but also with great challenge. The psychiatrist can be a participant-observer in a highly personal adventure in self-realization. This experience can provide new insights for the examiner as well as for the examined. The results are sometimes disheartening—other times—far more encouraging. Yet it is because of those little gains that the whole undertaking is a very rewarding experience.

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The Carrier Clinic

FDA's Use of Outside Consultants

The use of non-Government experts as consultants on major medical judgments reflects FDA's commitment to base important regulatory decisions on the best available scientific evidence.

Fourteen advisory committees made up of 112 medical experts meet regularly with FDA's medical staff in the Bureau of Drugs to discuss important issues. Additional committees are now being formed. The over-all direction of the Agency's regulation of prescription and over-the-counter drugs is influenced by a National Drug Advisory Council.

These committees supplement FDA's medical capabilities. FDA believes that the use of outside consultants, combined with the expertise of FDA's own physicians, leads to sound and well-balanced medical regulatory actions.

"The history of science, and in particular the history of medicine . . . is . . . the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."

– George Sarton, from "The History of Medicine Versus the History of Art"

Are combination drug products useful in treatment involving concomitant use of two or more drugs?

Opinion

Results of a questionnaire to 7,000 physicians:

62.9%
Believe combination drug products are useful.

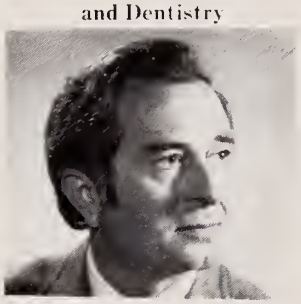
13.8%
Do not believe combination drug products are useful.

Are combination drug product useful in treatment involvin concomitant use of two or more drugs

Opinion & Dialogue

Doctor of Medicine

Louis Lasagna, M.D.
Professor and Chairman
Department of
Pharmacology & Toxicology
University of Rochester
School of Medicine
and Dentistry



Obviously, many drugs are given concomitantly. Whether it makes sense to combine medications in one preparation, be it capsule, tablet, or liquid, is a question that can be answered only by examining the advantages and disadvantages in the individual case.

Among the advantages is, first of all, convenience. The more medications that are taken concurrently and the more complicated the directions, the less likely the patient is to take medications accurately. From the standpoint of convenience and accuracy, and economy as well, you can make an important case for putting medications together in one preparation, as long as they are compatible.

By the same token, when you prescribe a properly tested and rational combination, you should have less worry about pharmaceutical or pharmacological compatibility – and about reasonable dosage ratios as well. Compatibility of the formulation should be demonstrated in the laboratory and clinic before the product is available for prescription—which is more than can usually be said for the physician's own spontaneous creations. And, the dosage ratios employed in rational precompounded combinations are designed to meet the needs of substantial numbers of "typical" patients.

There is no doubt that many "atypical" patients are to be found, and for them the prefabricated combination must be rejected. But that hardly argues for eliminating rational combinations from the market. Think, for example, of the problems that would arise if the components of widely accepted combinations, like the oral contraceptives and the diuretic-antihypertensives, always had to be prescribed, purchased and ingested separately.

One disadvantage that comes to mind is some doctors' unawareness of the ingredients a given combination contains. For example, a doctor might know that a patient is allergic to aspirin but forget that a certain analgesic mixture, which he knows only by its trade name, contains aspirin. His prescription, then, causes considerable discomfort, to say the least. This problem is a function of physician education, rather than of combination therapy as such. Improving doctors' knowledge about all medicaments they prescribe is a problem that deserves tackling on its own.

Another accusation leveled at combination drugs is that they encourage sloppiness of diagnosis and treatment. In many cases, however, a combination may prove to be the most effective choice. A good example of the usefulness of combinations appears in a recent article in the *Journal of Chronic Diseases* on the efficacy and side effects of an antihypertensive containing three ingredients, in which the track records of the combination drug and the individual ingredients were compared. Interestingly enough, whether the drugs were given individually or together, incidence and severity of side effects were the same. But blood pressure control was invariably better when the drugs were taken in one combination tablet than when they were taken separately (in "titratable" dosage) or in two or three different tablets.

Deciding which combinations constitute rational therapy obviously leads to a discussion of who is to determine which should be used and which should not. Realistically, I think combinations should be evaluated somewhat differently if they are old and established or new and untried.

In today's regulatory atmosphere, there is no possibility of a new combination being put on the market without a substantial amount of acceptable evidence in the form of controlled trials that show it to be safe and efficacious. On the other hand, I believe a different set of standards should apply to combination preparations that have been around for a long time. In other words, physician acceptance over a long period should be given some weight as evidence of the efficacy and safety of these drugs.

The FDA, however, does not seem to share this attitude. It often requires, for these older products, controlled trials that will monopolize the time of already overtired investiga-

tors and cost a great of money. I wish we c agree on a "grandfa clause" approach to pr rations that have been u for a number of years that have an appare satisfactory track reco

For example, I t some of the antibiotic binations that were t off the market by the performed quite well. thinking particularl penicillin - streptom combinations that pat —especially surgical tients—were given in injection. This made less discomfort for th tient, less demand nurses' time, and f opportunities for do errors. To take su preparation off the m doesn't seem to be medicine, unless actua age showed a great de harm from the injec (rather than the pr use) of the combinatio

The point that shou emphasized is that t are both rational and tional combinations. real question is, who sh determine which is w Obviously, the FDA play a major role in ing this determinatio fact, I don't think it avoid taking the ulti responsibility, but it sh enlist the help of ou physicians and exper assessing the evidence in making the ultimat cision.

Maker of Medicine

W. Clarke Wescoe, M.D.
President
Winthrop Laboratories



If two medications are ed effectively to treat a rtain condition, and it is nown that they are com- tible, it clearly is useful d convenient to provide em in one dosage form. would make no sense, in ct it would be pedantic, insist they always be escribed separately. To oid the appearance of dantry, the "expert" de- ies the combination be- use it is a fixed dosage rm. When the "expert" vokes the concept of fixed sage form he obscures e fact that single-ingre- ent pharmaceutical prep- ations are also fixed sage forms. By a singular mantic exercise he im- ies a pejorative meaning the term "fixed dose" ly when he uses it with spect to combinations. hat is ignored is the sim- e fact that only in the rest of circumstances es any physician attempt titrate an exact thera- utic response in his pa- nt. It is quite possible at some aches and pains ll respond to 500 mg. of pirin yet that fact does t militate against the *us- l* dose being 650 mg.

The other semantic ploy ten called into play is to scribe a combination oduct as rational or irra- nal.

Take antibiotic mixtures, e source of much of the iticism generated against combinations generally. Obviously, no one should be exposed willy-nilly to the potential side effects of two or three antibiotics when only one is needed. At the same time there are cases where it is prudent to prescribe more than one. The clinician is the judge in these circumstances, as he should be.

There is no clear definition of the word rational. Most persons, I suppose, would find it synonymous with reasonable, but in many circumstances it may best be defined as the opinion of those in power at the moment.

Other factors govern combination therapy, not the least of which has been its broad use by practicing physicians anxious to achieve convenience in prescribing, to reduce medication error, and to save money for their patients. Combinations clearly have met the test on all three counts.

I have been impressed by studies showing that the rate of error climbs markedly with the number of medications to be taken, even with sophisticated patients. When medically justified, therefore, this factor alone supports the logic of combination therapy.

The cost argument for combinations appears to be irrefutable. In 1971, R. A. Gosselin studied the 71 combination products (excluding oral contraceptives) among the 200 most prescribed drugs. The study found that if all 71 products were discontinued, and if each ingredient in these combinations were prescribed separately, the price of medicines to patients would jump by $443.2 million on a national basis! At a time when the cost of medical care is under so much fire, it would be nonsensical to boost costs without clearly irrefutable medical reasons.

The part played by government on this question, of course, is fundamental. The FDA should play a role in determining which combinations are reasonable. That role, as defined by law and regulation, is to ensure that any medication on the market is safe and effective in line with its label claims. Certainly combinations are entitled to as much consideration as single entities—neither more nor less. So long as the addition of one drug to another does not make either less safe, or less effective, so long as they are compatible in a formulation, we have a reasonable product. It makes no sense to recommend the use of two products for certain conditions and to deny their being combined in a single form. An unhappy side effect of the problem concerns the efficacy panel discussions of many products submitted for review. The term "effective, but" has been freely interpreted to mean "ineffective" in toto, regardless of the merit of the individual drugs. This interpretation has placed numerous useful combination products in needless jeopardy.

In reading the actual reports of the review panels, it seems clear that some of the ratings were based less on scientific research and clinical observation than on the "informed" opinions of the panelists. These "informed" opinions were accepted at face value, while the "informed" opinions of others who had used the products were rejected. All of this put combination products into a sort of scientific never-never land.

It should be kept in mind by all, government as well as others involved in our health care system, that advances in therapy are seldom made in leaps and bounds but rather by small painstaking steps—and that some of these steps have resulted from research in combination drugs as well as with single entities. Given the near-infinite biologic variation in patient response, this is hardly surprising to clinicians. It should not be to regulatory agencies either.

In the end, the practicing physician is in the best position to decide if a particular combination makes sense. Such a decision should not be made exclusively by those whose responsibility for continuing clinical care is limited. Clinicians are the best judges of efficacy because the ultimate proof of any product's effectiveness is acceptance by physicians who have observed its actions in patients over time. The corollary statement may be made about over-the-counter medicines, which would not long survive if they failed to afford the relief the user anticipates. That the antihistamine in a "cold" remedy may not *always* be necessary is no reason to proscribe the combination generally.

Opinion & Dialogue

What is your opinion, doctor?
We would welcome your comments.

P·M·A

The Pharmaceutical Manufacturers Association
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MINOCIN® made the difference in just eight days.*

Clinical Data:
Patient: 47-year-old male.
Diagnosis: Severe pyoderma, left hand.
Culture: *Staphylococcus aureus, coagulase* positive and sensitive to MINOCIN.
Temperature: 102° F
Therapy: MINOCIN Minocycline HCl Capsules, 100 mg: 200 mg *stat,* 100 mg every 12 hours. Medication began 9/7/71. By fourth day, temperature was normal and pustular lesions considerably improved. Last dose taken 9/14/71.
Concomitant therapy: None.†

Semisynthetic
MINOCIN®
MINOCYCLINE HCl
Capsules, 100 mg: 2 *stat,* 1 q 12 h.

Indications: For the treatment of susceptible infections; e.g., *E. coli, D. pneumoniae.* For full list of approved indications consult labeling.
Contraindications: Hypersensitivity to any tetracycline.
Warnings: The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower total doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has also been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. CNS side effects (lightheadedness, dizziness, vertigo) have been reported, may disappear during therapy, and always disappear rapidly when drug is discontinued. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while taking this drug. *Pregnancy:* In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. *Newborns, infants and children:* All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg./kg. every 6 hours, demonstrated a decrease in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class.

Precautions: Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Because tetracyclines have been shown to depress plasma prothrombin activity, patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.

Adverse Reaction: GI: (with both oral and parenteral use): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. *Skin:* maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). *Renal toxicity:* rise in BUN, dose-related (see "Warnings"). *Hypersensitivity reactions:* urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. *Blood:* hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia. *CNS:* (see "Warnings.") When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

NOTE: Concomitant therapy: Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that absorption of MINOCIN is not notably influenced by foods and dairy products.

***Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracylines are not the drugs of choice in the treatment of any staphylococcal infection.** †Case Report, Clinical Investigation Department, Lederle Laboratories.

Lederle LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965 12-20 436-2

Profiled here is a capsular summary of our State's posture in the field of graduate education.

The New Jersey Story in Continuing Medical Education*

James A. Rogers, M.D./Paterson

Seton Hall University established our State's first medical school, in 1954. It lasted until the mid-60's at which time the State of New Jersey took over and changed the name to the New Jersey College of Medicine and Dentistry. At that time, Rutgers Medical School was operating in New Brunswick as a 2-year medical school. Then the College of Medicine and Dentistry of New Jersey was established with a single Board of Trustees, with one president and a staff to administer the facilities as follows:

The College of Medicine and Dentistry of New Jersey comprises four schools with an enrollment of over 800 students, most of whom are New Jersey residents. The schools of the College include:

1. Graduate School of Biomedical Sciences at Newark.
2. New Jersey Dental School at Jersey City.
3. Rutgers Medical School at Piscataway Township (near New Brunswick).
4. New Jersey Medical School in Newark.

The other major divisions of the College include two primary teaching hospitals: (1) Raritan Valley Hospital in Greenbrook for the Rutgers Medical School, and (2) Martland Hospital in Newark for the New Jersey Medical School.

The Rutgers Medical School occupies a modern medical complex on the Piscataway campus of Rutgers, the State University. A new psychiatric hospital is well under construction nearby and a teaching hospital is contemplated in the area. Thus, the existence of any medical school facility in New Jersey is less than 20 years old. Prior to this time, students of New Jersey could get medical education only outside the state.

In 1911 the Academy of Medicine of Northern New Jersey was formed for the purpose of postgraduate education. A well-equipped library was also established and located in Newark. The library was popular and the Academy's facilities were used extensively for postgraduate education by New Jersey physicians who also availed themselves of facilities in other areas of the country that met their demands.

Since World War II, postgraduate activity in the state was under the aegis of The Medical Society of New Jersey and its component sections (the county societies), the North Jersey Medical Society, the New Jersey Osteopathic Society, the Academy of Medicine and the specialty societies. In addition, physicians have availed themselves of courses given by the medical schools and centers offering postgraduate education. As time went on, hospitals and medical centers of the state, either alone, or in association with specialty societies, or the Academy of Medicine, increased their postgraduate education activities rapidly. There was ample evidence that opportunities for postgraduate education have been available to all physicians of this state who sought them.

The Council on Continuing Medical Educa-

*Delivered on April 26, 1972 at the Officers' Conference, Pennsylvania Medical Society, Camp Hill, Pennsylvania. Dr. Rogers is First Vice-President and chairman of the Committee on Medical Education of The Medical Society of New Jersey.

tion of the New Jersey Regional Medical Program was cognizant of the changing patterns of continuing education, which are as follows:

(1) In the past three decades, man has gained a considerable amount of new scientific and technical knowledge. This applies notably to medical science. Medical educators must constantly revise the curriculum in the medical schools and adapt the teaching of students to the present needs of health care delivery.

(2) Medical educators now feel that their responsibility to the student continues even after graduation, and it is the obligation of the medical school to continue with postdoctoral education activities. Of the medical schools now in the United States, about 70 have Departments of Postgraduate or Continuing Medical Education.

(3) The Council on Education of the American Medical Association in 1940 alerted hospitals and physicians to the importance of continuing medical education. Some hospitals quickly established such activities.

(4) Following World War II, many returning veterans took refresher courses before re-entering practice. In 1968-1969 there were 1,922 such courses listed (AMA). Today there are over 2,300. It is important to note that the economic compensation of interns and residents has improved markedly in the past ten years so that they could continue postdoctoral residencies and fellowships.

(5) The concept of the general hospital as we know it has changed to that of a medical center. Its new goal is that of delivering total health care to the entire community. This was brought about by the people's new belief that health care is a right. The establishment of Departments of Continuing Medical Education at hospitals and medical centers is now considered essential.

(6) Interest in continuing medical education is shared by all concerned with the delivery of better health care. Circumstances present in New Jersey regarding hospitals, their medical staffs, and the medical schools prompted the need to determine the status of continuing medical education as it existed in New Jersey.

It was their wish to obtain information regarding the present status of this discipline in New Jersey. Furthermore, it appeared necessary to determine the role of the community hospital as an *institution of learning*, and *as a source of personnel for teaching*.

Through the efforts of the New Jersey Regional Medical Program, a survey of continuing medical education was conducted in 1969. From this survey it was evident that hospitals with less than two hundred beds each had minimal educational enterprises. Intermediate sized hospitals had medical staffs who recognized the need for concerted efforts to keep abreast with major developments in practice, and with some direction and support, their present programs could be enhanced. The larger hospitals had programs which should be expanded so that they serve as models.

An analysis of the data disclosed the following salient features:

(1) Many hospitals are now becoming medical centers with more involvement in community health care.

(2) There was an increasing number of hospitals that were supporting family practice programs.

(3) There was an attempt to provide good medical care to all patients in the area.

(4) There was an interest on the part of hospitals lacking departments of continuing medical education to establish such disciplines.

(5) In allocating funds for continuing medical education, hospital boards were often not given adequate support.

(6) There was an increasing interest of the medical staffs of all the hospitals in continuing medical education.

(7) An increasing number of hospitals were seeking Directors of Medical Education.

(8) Attempts were under way to obtain participation and involvement on the part of the medical staff in teaching programs.

(9) Efforts were being made to increase the geographic distribution of full-time physicians in the larger hospitals.

(10) A need existed for experienced educators in medicine to direct such programs in community hospitals.

(11) Great variation in attendance and response on the part of physicians was traced to the lack of adequate description and elaboration reflecting the quality of the programs offered.

(12) On a statewide basis there was little coordination and organization of educational programs.

(13) Prior to this time existing medical schools in our state did not have any Office of Continuing Medical Education.

(14) The replacement of the solo practitioner by physicians in group practice was rapidly expanding, especially among younger physicians.

(15) Circumstances produced the diminution of activities of many county medical societies in a continuing medical education.

(16) The concern of the community for good medical care at a fair cost.

(17) The growing influence of governmental directives in the practice of medicine.

(18) The progressive involvement of a third party in compensation and insurance practice.

(19) Problems of accreditation, relicensure and recertification are rapidly offering threats and opportunities.

In addition to the educational efforts emanating from local hospitals, numerous courses and lectures are offered by specialty societies, health organizations, medical centers throughout the United States. In many instances, an adequate description of the course was lacking, and, not infrequently, courses on similar subjects were scheduled in the same area and at the same time by different groups. More attention should be given to the selection of courses and to quality and scheduling to meet the needs of the medical staff of the hospital.

The single greatest obstacle preventing the physician from engaging more deeply in a continuing education program was time. Aside from long working hours reducing attendance at such scientific meetings, family responsibilities and the need for some personal relaxation, seldom were personnel available for adequate coverage of his practice.

About 25 per cent of the general hospitals of New Jersey have directors of medical education, who were primarily concerned with interns' and residents' education. It is mandatory that this educational activity encompass continuing medical education for the entire staff. In many instances, this has been done. Some of these departments of education could well serve as models for the development of comparable departments in the remaining 75 per cent of the hospitals in our state. Many institutions need help in developing programs in continuing medical education. It is not expected that small hospitals undertake such a project alone, but that they unite with other hospitals of the region in this joint endeavor. Great interest has been expressed by many hospitals in establishing such departments.

When the determination on the part of these hospitals to establish such departments, and candidates for Directors of Medical Education have been selected, then a program instructing them must be arranged. Experienced directors of medical education, along with the Office of Continuing Medical Education of New Jersey, must plan a curriculum for such courses, undertake the instruction, and later act as consultants. A full-time director of medical education could organize and direct a medical staff serving 250 to 300 beds or more.

(1) *The basic unit* in the plan should be a community hospital of 250 to 300 beds or more, or smaller hospitals in close proximity sharing activities. Each unit needs a director of medical education to direct and to organize the educational programs. A faculty will be formed consisting of knowledgeable and interested physicians on the medical staff. The curriculum at the basic unit must include topics of broad medical interests. *Needs* as demonstrated by the medical audit must be stressed. Advances in basic sciences as related to disease, and advances in diagnosis and treatment, as well as other problems at the basic unit of interest to all members of the staff must be included. Educational activities of the basic unit should be primarily intramural, and the educational endeavors must be open to all physicians.

In conjunction with neighboring basic units (hospitals) in the area, and in an extramural fashion, the directors of medical education should jointly arrange curricula of interest for the physicians of the entire community. These efforts should be planned so as not to interfere with or cause duplication with intramural programs.

(2) *The intermediate unit* in the plan will involve all of the specialty societies, and the voluntary health organization along with the Academy of Medicine, to arrange programs on a regional basis.

(3) An Office of Continuing Medical Education of New Jersey is being established to coordinate and supervise the entire plan, to cooperate with the intermediate unit (Academy of Medicine, voluntary health organization, and specialty societies) as well as with the basic units throughout the state. The

medical school faculty and the specialty societies can supply (when requested and as needed) expert medical talent to the basic unit, to act as visiting teachers, to take part in clinical pathological conferences, in grand rounds, and in portions of the teaching programs. In this manner, the medical staff of the basic unit could be stimulated with other viewpoints in medical care. Liaison between the Office of Continuing Medical Education and the basic units will be through the Directors of Medical Education. The intermediate unit will also have a liaison with the Office of Continuing Medical Education for purposes of coordination, supervision, and evaluation of programs.

346 East 34th Street

To Save Your Baby's Life

Newark's infant death rate is the highest in the country. Appalled by the astoundingly high rate of infant mortality in Newark, the New Jersey Medical School, in collaboration with five Newark hospitals, has published an instructional brochure, entitled *How to Save Your Baby's Life,* that will be given to every woman giving birth at these hospitals.

Prepared by the Departments of Preventive Medicine and Community Health, and Pediatrics and Obstetrics and Gynecology of the College of Medicine and Dentistry of New Jersey—New Jersey Medical School, the flyer is designed to prevent infant deaths occurring during the first year of life.

The project, which was funded in part through a grant from the Englehard Foundation, was undertaken as the result of a study at the college by Ann Browder, M.D., in cooperation with the Newark Division of Health. Statistics showed a 34.6 per cent mortality rate in 1971 or "double the national average." Unlike other major cities, Newark has shown no decline over the last few years in the death rate among infants under one year of age.

Newark's death rate, highest in the country, was due mostly to premature births though one-quarter of the deaths were due to accidents and sickness in the home. It is these deaths the brochure is designed to prevent.

The four-page flyer, printed in English, Spanish, and Portuguese, is aimed at educating families to guard against accidents to the infant and, when appropriate, to "see the doctor immediately," before sickness becomes so severe that medical treatment is ineffective. It lists phone numbers to call for the location of the nearest community Keep Well Station.

Said Franklin C. Behrle, M.D., chief of pediatrics at the medical school, "too many infants in Newark come to the hospital virtually moribund from pneumonia or intestinal infections. If we or private physicians see these infants early in their disease, we can almost always cure them." Donald B. Louria, M.D., head of the Department of Preventive Medicine and Community Health, explained that "we have deliberately settled in one of the most deprived areas of the city and pledged ourselves to define the major health problems and then intervene. Infant mortality in Newark is certainly one of those problems."

For two years Dr. Browder studied each infant death in Newark and a matched normal birth. From this study she concluded that many infant deaths occurred after the mother and child left the hospital. These should be preventable.

Hospitals disseminating the flyers are Martland, Beth Israel Medical Center, St. Michael's Medical Center, United Hospitals, and St. James Hospital. It will also be available, on request, from the Department of Preventive Medicine and Community Health, at the College, 100 Bergen Street, Newark 07103.

NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

December 17, 1972

A regular meeting of the Board of Trustees was held on December 17, 1972, at the Executive Office in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of the significant actions follows:

CMDNJ . . . Accepted a report from the President of CMDNJ, Stanley S. Bergen, M.D., on developments in the College, which included a notation that the Hunterdon Public Health Foundation had provided a grant for the staff needed by the Task Force on Graduate Education (to be known as an advisory committee), whose activities are directed to recruiting American interns and residents to the State of New Jersey.

AMA Congress on Medical Education . . . Authorized James A. Rogers, M.D., Chairman of the Committee on Medical Education, to attend (with expenses paid) the 69th Annual Congress on Medical Education, February 9 to 11 in Chicago.

Unified Credit Plan for AMA-ERF Contributions . . . Approved a request (and directed that the AMA be so notified) from MSNJ's Woman's Auxiliary that the Board establish (so as to give the Auxiliary credit on the National Auxiliary AMA-ERF annual project) a unified credit plan for all AMA-ERF contributions from physicians, auxiliary members, local medical societies, laymen, or others.

Electronically Controlled Wheelchairs . . . Received a report from Legal Counsel that the Department of Health has been apprised of the Board's objection to a proposed regulation concerning the sale of electronically controlled wheelchairs, unless the regulation provides that the obligation to instruct and train purchasers of the wheelchairs is placed on the seller.

National Blue Cross Association . . . Directed that the Assistant Executive Director reply to the National Blue Cross Association's request that MSNJ support their position that primary coverage for auto accident victims should be by health care insurance carriers rather than by automobile insurers, reflecting the decision of the Committee on Medical Defense and Insurance not to endorse the concept proposed by the Association on the basis that the individual purchaser of medical insurance should have the privilege of deciding where he wishes to place his insurance and that the proposal would not be in the public interest.

MSNJ Life Plan—Supplemental Insurance . . . Approved the following recommendation from the Committee on Medical Defense and Insurance:

> That The Medical Society of New Jersey make available to its members a supplemental life insurance program providing an additional $100,000 coverage as offered by Bankers Life Company of Des Moines, Iowa, through the E. & W. Blanksteen Agency, Inc.

Overhead Expense Policy . . . Approved the following recommendation from the Committee on Medical Defense and Insurance:

> That the Board of Trustees approve the establishment of a Professional Overhead Expense Policy to be offered to members of MSNJ as proposed by the E. & W. Blanksteen Agency, Inc., and underwritten by the National Casualty Company of Detroit, Michigan.

No-Fault Professional Liability Insurance . . . Approved with commendation the report on the feasibility of no-fault professional liability insurance prepared by the Assistant Executive Director (see page 149 this issue, for complete report).

Survey Fee for Continuing Medical Education Programs . . . Approved the following recommendation from the Committee on Medical Education:

> That The Medical Society of New Jersey charge an application fee of $25 (for survey of continuing medical education programs in hospitals) and that MSNJ underwrite the *incidental* expenses of the survey team

for on-site inspections. (italics indicate Board amendment)

Certification in Continuing Medical Education—Proposed Bylaw Amendment . . . Directed that the following proposed amendment to the Bylaws of MSNJ be transmitted in writing to the Secretary of the Society to initiate the process set forth under the requirements for amendments to the Constitution and Bylaws:

Bylaws, Chapter XI—Component Societies, Section 2—Qualifications of Members:

(e) In order to retain active membership in this Society, the member must hold a current Certificate in Continuing Medical Education from MSNJ's Committee on Medical Education. This program is to be administered by the Committee on Medical Education in accordance with policy approved by the Board of Trustees. The Committee on Medical Education may, with the approval of the Board of Trustees, and for good cause shown, grant specific *exemptions* to this *sub*section. (Italics indicate Board amendments.)

Medical Education—Staffing . . . Approved the following recommendation from the Committee on Medical Education:

That the Board of Trustees *authorize* the employment of a *staff* secretary to work primarily on the Program on Continuing Medical Education. (italics indicate board amendments)

AMA Clinical Convention . . . Approved the following report of the New Jersey Delegation to the 1972 AMA Clinical Convention:

The 26th Clinical Convention of the American Medical Association was held in Cincinnati from November 26 through November 29. The House met for a total of 8 hours and 55 minutes and took action on 59 reports and 65 resolutions. Total registration was 5,291. This figure includes 2,214 M.D.'s, 137 medical students, 147 R.N.'s, and 93 allied health professionals.

The Medical Society of New Jersey was represented by six delegates. Doctors George L. Benz, Joseph P. Donnelly, and Frank J. Hughes, elected delegates were present and participating. Serving to complete our delegation strength were Doctors Nicholas A. Bertha, Joseph R. Jehl, and Robert E. Verdon. Doctor Hughes was a member of Reference Committee H. Alternate Delegates Louis F. Albright, M.D., and Emanuel M. Satulsky, M.D. also attended and took part in House and reference committee activities. Also present as official representatives of MSNJ and in attendance at sessions of the House and its reference committees were William J. D'Elia, M.D., President; Matthew F. Boylan, M.D., President-Elect; Richard I. Nevin, Executive Director; and Vincent A. Maressa, Assistant Executive Director.

At the first session of the House of Delegates on Sunday, November 26, the New Jersey Delegation introduced a memorial resolution in honor of Luke A. Mulligan, M.D. who died on October 26. Doctor Robert E. Verdon read the memorial resolution in the House of Delegates. It follows:

Whereas, suddenly on October 26, 1972, Luke A. Mulligan, M.D. was summoned from our midst; and

Whereas, by his high character and exemplary life both as a man and as an outstanding member of the medical profession, Doctor Mulligan was ever a model to his colleagues and a genuine inspiration to all who knew him; and

Whereas, since 1963 Doctor Mulligan served with distinction as a member of this House; and

Whereas, his death imposes a heavy and sorrowful loss upon Medicine and the people whom he so ably served; now therefore be it

Resolved, that the House of Delegates of the American Medical Association records its grief at the passing of Doctor Mulligan and extends sincere condolences to his bereaved widow.

At its first caucus, the Delegation considered the entire content of the *Handbook of the House of Delegates* for the Clinical Convention on the basis of studious analyses presented by delegates and alternates, concerning specific sections previously assigned for their study. In furtherance and support of positions and points of view agreed upon concerning all reports and resolutions before the House, members of the New Jersey Delegation were assigned to reference committees as follows: Amendments to Constitution and Bylaws . . . Doctor Bertha and Mr. Maressa; Reference Committee A . . . Doctors Benz and Donnelly; Reference Committee B . . . Doctor Jehl; Reference Committee C . . . Doctors Albright and D'Elia; Reference Committee D . . . Doctor Verdon; Reference Committee E . . . Doctor Satulsky; Reference Committee F . . . Doctor Boylan; Reference Committee G . . . Mr. Nevin; Reference Committee H . . . Doctor Hughes.

Among its significant actions, the House:

. . . Adopted Report Z of the Board of Trustees and the Council on Medical Service and decided that, in view of the adoption of P.L. 92-603 (HR 1), the AMA "should provide a dominant role of leadership in the implementation of the PSRO program, to assure that the best interests of the public and the profession are preserved."

An AMA Advisory Committee on Professional Standards Review will be created by the Board of Trustees. It will include members of the Board and of the Council on Medical Service. In addition, the Board may invite other appropriate organizations to participate. Among responsibilities assigned to the new Committee are these:

1) To provide input from the medical profession in the development of rules and regulations which will govern the PSRO program.

2) To assist state medical associations, or state medical associations in concert with county societies, in developing PSRO's and to recommend structures and operating mechanisms for such organizations.

3) To aid in defining appropriate geographic boundaries for PSRO's, especially where more than one state may be involved.

4) To develop and distribute information about

P.L. 92-603 to constituent societies; monitor the effect of PSRO on medical care, and report to each future House session; and to instruct the House and state societies on procedures to follow "whenever rules and regulations interpreting the law and published in the *Federal Register* seem to be contrary to the spirit of the law as written."

. . . Approved budget-cutting action recently taken by the Board of Trustees, including the termination of four councils and six committees and the making of specialty journals available on subscription only. Starting January 9, 1973 *Prism,* the AMA's new socio-economic publication, will be sent as a benefit of membership, along with *JAMA.*

. . . House members balloted on the question of duration of terms of office for AMA Board members. At present, trustees serve 3-year terms, with a maximum of 3 terms—89 delegates voted to continue this policy; 128 voted for a maximum of two 3-year terms; 14 voted for two 4-year terms; and 6 voted for a single 6-year term. The matter was referred to the Council on Constitution and Bylaws for study and possible recommendations.

. . . Adopted Report N of the Board of Trustees, dealing with new federal regulations regarding collection and distribution of blood. Among recommendations to be given to a federal panel on blood-banking are: that operating standards of the American Association of Blood Banks and the American Red Cross be recognized and accepted; that physicians be represented on any national panel set up to advise on procurement or use of blood; and that programs to increase voluntary blood donations be encouraged.

. . . Set AMA dues for student AMA members at $15.

. . . Rejected a proposal that the AMA president also be chairman of the Board of Trustees.

. . . Defined the primary care physician as follows: "A physician assumes the role of a primary care physician when the patient depends on him for the initial access to and for the provision and over-all management of his medical care. The same physician may not invariably continue in this role, but, by referral, another physician may assume it. In any specific health matter, the particular physician who accepts a patient for primary care should assume continuing supervision of that care. This relationship may also be carried out by a group of physicians who function in a defined, responsible pattern of medical practice. In such a type of practice, a single physician, however, should maintain an ongoing relationship with the patient and coordinate his care."

. . . Referred to the Board of Trustees for a report next June a resolution asking revision of the "more than allowable charge" phrase in the "Medicare Explanation of Benefits" form.

. . . Reaffirmed a previous AMA position that regulations authorizing Medicare carriers to disclose names of physicians accused of furnishing services to beneficiaries in excess of their medical needs be amended to require prior review by a medical society committee.

. . . Referred to the Council on Medical Service a resolution directing the AMA to work for clarification of rules governing physician visits to nursing home patients under Medicare and other federally sponsored or supported medical payment programs.

Foundation for Health Care Evaluation . . . Voted to underwrite the necessary expenses of the Foundation for Health Care Evaluation, effective February 1, 1973, at the rate of up to $6,000 a month to the end of the current fiscal year.

. . . Urged the prompt formation of the 21-man Steering Committee for the Foundation and directed that, from the membership of that Committee, Dr. Lang be authorized to appoint a Subcommittee on Finance, on which the Treasurer and Business Manager serve as ex-officio members, and on which Louis K. Collins, M.D. and other physicians and individuals representing potential sources of funds shall be invited to serve as advisory members, and that said Subcommittee shall submit to the Committee on Finance and Budget a list of needs to be included in next year's budget recommendations.

Membership Inquiry and Complaint Mechanism . . . Directed that the following resolution from the Special Session of the House of Delegates be referred to the Executive Committee for implementation:

Whereas, it is evident from the membership hearings that many speaking for unionism of the profession do not desire unionism's (1) forced conformity, (2) high dues or assessments, (3) strikes or secondary boycotts, and (4) problems of public resentment; and

Whereas, it is also evident from the hearings that there is membership dissatisfaction in their daily problems involving third party carriers and government medical programs; and

Whereas, the solution of these problems could easily fit into the structure of organized medicine at the State level; now therefore be it

RESOLVED, that The Medical Society of New Jersey establish a membership inquiry and complaint mechanism as follows:

(1) Four specific committees be activated to meet directly with representatives of respective carriers or intermediaries on a routine monthly basis and that these committees be Medicare, Medicaid, Blue-Shield and a committee for other health insurance carriers. These committees to be comprised of at least one member from each judicial district.

(2) That a post office box be established through The Medical Society of New Jersey specifically to receive membership complaints for sorting and immediate transmittal to the proper committee.

(3) That a form for third party membership complaints be adopted and published as a full page in *The Journal* of The Medical Society of New Jersey

and that county societies be requested to publish like forms in their bulletins.

(4) That members be informed promptly in writing of the disposition of their complaints or inquiries.

(5) That the State complaint mechanism be coordinated with, and cooperate with, and receive inquiries and complaints from, similar county medical society inquiry and complaint mechanisms where they exist.

(6) That The Medical Society of New Jersey or the county peer review committee refuse to hear complaints from carriers, or to take action on such complaints, unless the carriers agree to be bound by the decision of the committee.

Public Relations Program . . . Directed that the following resolution be referred to the Council on Public Relations:

That the Council on Public Relations develop promptly an articulate, aggressive public relations program, to be supported by an annual budget of up to $15 per capita.

Successor to Mr. Nevin . . . Approved the following recommendations from a committee to select a successor to Mr. Nevin:

1. That Mr. Vincent A. Maressa be moved up to the position of Executive Director.

2. That he assume the responsibilities of the position on June 1, 1973, the date on which Mr. Nevin is scheduled to retire.

3. That the conditions of Mr. Maressa's employment be worked out through conferences between the committee and him, with assistance of Legal Counsel.

4. That an assistant be found to work under Mr. Maressa in an executive status; this position to be filled after June 1, 1973.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Division of Laboratories and Epidemiology during December 1972:

	1971 December	1972 December
Aseptic meningitis	13	28
Primary encephalitis	3	1
Hepatitis: Total	310	196
Infectious	228	152
Serum	82	44
Malaria—Military	2	
Meningococcal meningitis	1	4
Mumps	32	141
German measles	29	30
Measles	69	1
Salmonella	104	38
Shigella	57	43

Measles and Rubella Disease Patterns

Intensive surveillance for these diseases has been in force during 1972. Each reported patient is interviewed for vaccine status and contacts. If he is a school-age child, the school nurse is asked if other cases have occurred in that school. This kind of follow-up often leads to early detection of outbreaks of either measles or rubella.

Six hundred and five cases of measles were reported in 1972. This represents about 50 per cent fewer cases than were reported in 1971. Intensive surveillance of measles was the practice in 1971, so this probably does indeed reflect a true decrease in measles in New Jersey. Most of the 605 cases were scattered. Only a few large outbreaks occurred and those were primarily in Monmouth County.

Interesting rubella patterns emerged in 1972. A total of 1,217 cases were reported, approximately twice as many as in 1971. This increase is due in part to the beginning of intensive rubella surveillance in 1972. The majority of reported cases occurred in junior and senior high school children.

Fourteen outbreaks of rubella were investigated. Most cases were seen in children age 10 through 18. In only two communities did rubella spread down into elementary school children. Even when this happened, few cases occurred. There have been no rubella outbreaks during the current school year, and so it remains speculative if this age-disease pattern of rubella will be the norm in the vaccine era.

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***AVAILABLE ON REQUEST:** Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

No Fault Insurance and Professional Liability

Pursuant to Resolution #9 (adopted by the 1972 House of Delegates, MSNJ), the following report, prepared by Vincent A. Maressa, Assistant Executive Director, was approved by the Board of Trustees (December 17, 1972) and is here published in its entirety.

Resolution #9 as adopted by the 1972 House of Delegates called upon The Medical Society of New Jersey to undertake immediately a study of "no-fault" accident insurance with a view to evaluating the feasibility of plans for a "no-fault" type of professional liability insurance. The resolution was referred to the Committee on Medical Defense and Insurance for report and recommendation.

The concept of "no-fault" in redressing an injury is not an entirely new one, nor is it of recent origin. The Workmen's Compensation Statutes in effect in virtually all of the Western World are the classic example of this concept. The employee injured at work or suffering an illness attributable to his employment may recover according to the degree of disability suffered and the fee schedule in effect.

More recently the concept has become a byword in the automobile liability field. Several states have enacted proposals while most of the others have them under consideration. Since these plans differ relatively slightly only three will be discussed herein.

The Massachusetts Act

This act provides that all claims resulting from an automobile accident shall be handled under the "no-fault" system except that "a plaintiff may recover damages for pain and suffering, including mental suffering associated with such injury, sickness, or disease only if the reasonable and necessary expenses incurred in treating such injury, sickness, or disease for necessary medical, surgical, x-ray and dental services, including prosthetic devices, and necessary ambulance, hospital, professional nursing, and funeral expenses are determined to be in excess of five hundred dollars unless such injury, sickness, or disease (1) causes death, or (2) consists in whole or in part of loss of a body member, or (3) consists in whole or in part of permanent and serious disfigurement, or (4) results in such loss of sight or hearing as was not present before said accident, or (5) consists of a fracture."[1]

As can be readily seen in the above, virtually every bodily injury of any significance can remove the matter from the "no-fault" provision. It is also interesting to note that the Massachusetts statistics reveal a drop in bodily injury payments in the aggregate sense of dollar payments of 28 per cent. This optimism however, may be ill founded since at last report over 50 per cent of the bodily injury cases remained open.

The Florida Act

This law provides that all automobile accident claims shall be processed under the "no-fault" system. The plaintiff, however, had the right to sue for pain, suffering, mental anguish and inconvenience because of bodily injury, sickness, or disease arising from the accident when all reasonable and necessary expenses related to medical, surgical, x-ray, dental, and rehabilitative services, including prosthetic devices, ambulance, hospital, and nursing services, plus any tax excludable disability payments exceed ($1,000) one thousand dollars, "or the injury or disease consists in whole or in part of permanent disfigurement, a fracture to a weight-bearing bone, a compound, comminuted displaced or compressed fracture, loss of a body member, permanent injury within reasonable medical probabilty, permanent loss of a bodily function, or death."[2]

No meaningful statistics are available concerning this Act but it is again noted that bodily injury of any appreciable significance is to be considered an exception to the "no-fault" concept.

[1] Massachusetts Acts of 1970, Chapter 670
[2] Laws of Florida, 1971, Chapter 71-252

The New Jersey Act

This law provides that soft tissue injuries[3] resulting from an automobile accident are compensable as "no-fault" claims unless the reasonable and necessary medical expenses incurred, exclusive of hospital, x-ray, and other diagnostic expenses exceed ($200) two hundred dollars. The plaintiff, however, has an immediate right to suit if "the injured party has sustained death, permanent disability, permanent significant disfigurement, permanent loss of any bodily function or loss of a body member in whole or in part."[4]

Once again significant bodily injury excepts the claim from the "no-fault" system and places it in the present tort system. There are of course no meaningful statistics on the New Jersey Act. At this juncture it is significant to note that all of the "no-fault" proposals have an escape clause for the injured party suffering significant or serious bodily injury so that redress may be sought through tort litigation. The theory behind this result is that a tremendous savings could result in reaching a speedy dispatch of medical bills and property damage claims. It must be remembered at this stage also, that in dealing with an automobile accident both the insured and the carrier know that an accident occurred on a specific date and that a certain degree of damage occurred during that specific policy year. In other words the underwriting liability is recognized during the current policy year. In relating these aspects to medical malpractice, we must recognize that virtually all malpractice incidents involve significant bodily injury with the exception of defamation actions, and public sentiment clearly does not favor "no-fault" when dealing with a bodily injury, also only a very small portion of malpractice claims are reported in the policy year during which the alleged negligent act occurred.

Mindful that the theory of "no-fault" implies that every injury, no matter whose fault, demands recovery, we shall now attempt to relate the aforementioned principle to medical malpractice.

The Medical Society of New Jersey has about 6,000 physicians insured under its professional liability program. Past records indicate that we should have about five hundred or more incidents of various types registered by the insurance company annually. Certainly, many deaths accepted by the physician as expected, inevitable or normal, or infections, or results other than perfect, and other complications are not reported to the carrier. They could well run to another thousand or several thousands per year. Melvin Belli, the prominent San Francisco attorney, recently stated, he accepts only one of every nineteen medical malpractice cases brought to his office. Another prominent plaintiff's attorney stated that he turns away at least fourteen out of fifteen such cases brought to his office. If we assume an annual total of only two thousand for reported and unreported untoward events to be compensated for under a "no-fault" system, it should prove extremely more expensive than the present tort system—even if we used the present workmen's compensation schedule of payments as a standard.

Presently, the orthopedic class of practice, standing by itself is almost uninsurable because of the high frequency of suits and more especially the serious injuries requiring settlements. The orthopedist cannot obtain a perfect result in reducing certain fractures, but any result less than perfect could be termed a compensable untoward result without any deviation from the best standards of practice being established.

Death most assuredly is an untoward result. How would it be compensated for under a "no-fault" system? Would the compensation for an elderly person suffering death be on the same basis as the young wage earner with great potential or the young mother leaving several small children?

[3] Legislatively defined as "sprains, strains, abrasions, contusions, lacerations, bruises, hematomas, cuts, scrapes scratches, muscle tears, tears of tendons, ligaments, cartilages, nerves, fibers, veins, arteries, and skin

[4] New Jersey Statutes Annotated, Laws of 1972, Chapter 70

Would compensation be the same for a "no-fault" claim as for a case of absolute liability under the present system? Insurance companies would find it difficult to establish variable rates according to practice or exposure. When a death or serious injury occurred in the operating room would the anesthesiologist, surgeon, each assistant, each nurse, consultant, and referring family physician be equally charged since fault is not considered?

If culpability is removed as a requirement for recovery, some system will have to be substituted to determine which patients are to recover otherwise virtually all will, clearly a circumstance that is financially unsound. That task as we view it would not only be monumental, it would be impossible.

Many physicians feel that a system of hospital insurance similar to flight insurance could be instituted as a "no-fault" concept for patients entering the hospital. The glaring defect in that approach is that the airplane accident is the extreme exception rather than the rule when considered in proportion to the number of flights, air miles logged, and volume of passengers—even in the era of the skyjacker. On the other hand, every hospital has its weekly number of untoward, or unexpected results or deaths. Establishing an actuarial rate would be difficult, a reasonable rate would likely be impossible.

Another thought presented by physicians is that a "workmen's compensation" system could be employed. That system is presently a disaster and unfair to all concerned. In a recent New Jersey case, an airplane mechanic splashed with fuel, which later ignited, was allowed to recover even though he knew he should have changed his clothes and they did not burst into flame until after he had gone home from work.

Since public policy rejects the concept of "no-fault" in automobile liability cases involving automobile accidents wherein significant bodily injury occurs, it certainly would not accept it in medical malpractice where virtually every claim contains significant bodily injury. Automobile accidents present a high volume of occurrence with relatively limited damages. Medical malpractice presents a low volume of incidents with a high degree of severity. Workmen's compensation provides recovery to injured employees by virtue of legislative act. Under traditional Anglo-American law, the injured employee had no right to sue his employer—he merely "assumed" the occupational hazard. Thus legislation was promulgated to provide relief where none was present previously, regardless of fault. The injured patient has always had a right to recover from the negligent physician and it is doubtful that the public will clamor to give up that right.

Before closing this report, with my own opinion, I am going to incorporate herein the contents of a paper on Medical Malpractice prepared by the Center for the Study of Democratic Institutions entitled "A Discussion of Alternative Compensation and Quality Control Systems" issued in November 1971.

Eli P. Bernzweig, Attorney, Executive Director—Secretary's Commission on Medical Malpractice, Department of HEW, Washington, D.C., made the following comment about "no-fault" in the medical malpractice field:

"Defining the compensable event is nearly impossible. We know that many people who have suffered medical injuries are going uncompensated today. Now if we hypothesize a system simply to compensate maloccurrences arising out of blameless medical treatment, then I can foresee the economic costs of such a system trebling and quadrupling to the point of impossibility. There isn't an administrative mechanism large enough to settle all the compensability issues that would arise under such a system. We'd have to have new systems of courts throughout the country. I am wondering if all of this is feasible." (Mr. Bernzweig, incidentally, has been a vocal advocate of automobile "no-fault" insurance.)

Robert E. Keeton, Attorney, Professor, School of Law, Harvard University, in considering this same topic declared:

"The only kind of 'no-fault' compensation system I would be interested in, whether for automobile accidents, medical accidents, or whatever, is one that would do a cost-accounting job, that is, it would identify the kinds of compensation needs that arise from a certain source and impose on that source the costs for taking care of those needs.

"One must sort out and distinguish in an alleged medical injury situation those conditions in the patient that are traceable to his initial need for treatment and those which can be traced to the treatment itself. That is an administratively expensive issue to deal with, no matter what kind of compensation system you have. It calls for expert testimony. It may call for expert advocates.

"Also, virtually all economic losses can be compensated in a 'no-fault' automobile insurance program for less than what drivers are now paying in liability premiums. The same cannot be said for 'no-fault' medical accident insurance. Such insurance will not be a viable replacement for our present malpractice claims unless it not only provides the additional medical services needed but also reimburses the patient for wage and/or income loss and other out-of-pocket expenses connected with his injury. If 'no-fault' insurance will not do at least that much—and that is an expensive undertaking—then it will be hard to accept it as a replacement for our present system in which it is at least theoretically possible for a person to be reimbursed for his full economic loss, plus general damages for pain and suffering, if he is able to hurdle all the legal obstacles and win a judgment."

Professor Keeton has been the prime mover of the concept of "no-fault" automobile insurance, authored the Massachusetts Law, and drafted the uniform act appearing with minor modifications in most states.

It is therefore evident that the "no-fault" concept of insurance is not readily adaptable to the area of professional liability. Clearly extensive research and study has been done on the topic, all of which points to the conclusion that "no-fault" may not feasibly be applied to professional liability insurance.

207th Annual Meeting May 12-15, 1973

INFORMATION FOR READERS AND CONTRIBUTORS

The Journal, the official organ of The Medical Society of New Jersey, is published monthly under the direction of the Committee on Publication. *The Journal* is released the first week of the month, and a copy is sent to each member of the Society.

Change of Address: Notice of change of address should be sent promptly to The Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey, 08605.

Communications: Members are invited to submit to *The Journal* any suggestions for the welfare of the Society, as well as comments or criticisms of material in *The Journal*. All such communications should be directed to the Editorial Office of *The Journal*. The Publication Committee reserves the right to publish, reject, edit, or abbreviate all communications submitted.

Contributions: Manuscripts submitted to *The Journal* must be typewritten, *double-spaced* on letter size (about 8½ by 11 inch) paper, and forwarded to the Editorial Office at the address below. The Publication Committee expressly reserves the right to reject any contributions, whether solicited or not, and the right to abbreviate or edit such contributions in conformity with the needs and requirements of *The Journal*. Galley-proofs of edited or abbreviated manuscripts will be submitted to authors for approval before publication. Every care will be taken with the submitted material, but *The Journal* will not hold itself responsible for loss or damage to manuscripts. Authors are required to submit an original and one copy and are urged to keep a carbon for reference. It is understood that material is submitted here for exclusive publication in this *Journal*.

Illustrations: Authors wishing illustrations for their articles will submit glossy prints or original drawings from which cuts can be made. The cost of making such cuts will be borne by the author, who may, after publication, receive the cuts for his own use—*if he makes such a request* in writing to the Editorial Offices.

THE JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

P. O. Box 904, Trenton, New Jersey 08605

Medical College Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The Office of Continuing Medical Education of the College of Medicine and Dentistry of New Jersey has made steady progress since our announcement of its establishment and the appointment of James A. Rogers, M.D., as coordinator last July. An advisory council has been organized and has met several times to work on plans for future activities. And, the first Office of Continuing Medical Education workshop was conducted in December 1972 at the CMDNJ-Rutgers Medical School in Piscataway. The topic was educational planning and instructional strategies. Those attending the two-day program felt that the demonstration of methods for development of continuing medical education programs in institutional and community hospitals was a valuable experience. The program was conducted by two consultants from the Center for Educational Development of the School of Medicine of the University of Illinois.

The Advisory Council on Continuing Medical Education represents an outstanding gathering of health professionals from throughout our state. They are:

Arthur Bernstein, M.D.—
The Medical Society of New Jersey
Bruce Breckenridge, M.D.—
Rutgers Medical School, CMDNJ
Mr. Edward Cohen—
New Jersey Department of Higher Education
James R. Cowan, M.D.—
State Commissioner of Health
Richard J. Cross, M.D.—
New Jersey Regional Medical Program
Robert M. Cunningham, M.D.—
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William T. Snagg, M.D.—
Directors of Medical Education of New Jersey
William S. Vaun, M.D.—
Directors of Medical Education of New Jersey
Edward A. Wolfson, M.D.—
New Jersey Medical School, CMDNJ

The College established the Office of Continuing Medical Education in response to a survey made in 1970 which clearly demonstrated the need for such a coordinating agency in New Jersey. However, without the help of the organizations represented on the Advisory Council, the progress already achieved could not have been made.

The Office of Continuing Medical Education is preparing to assist you in meeting your continuing education needs through workshops, seminars, and other activities. As plans and programs develop, we will let you know about them through this *Journal* and other media. In the meantime, if you require information please call or write to the Office of Continuing Medical Education, College of Medicine and Dentistry of New Jersey, University Heights, Piscataway, New Jersey 08854 or telephone 201-932-3446.

Erratum

The Journal calls attention to an error in the December 1972 issue, page 1011, second paragraph, line two of the article, "Erroneous Diagnoses on Admission of Chest Cases" by Samuel Cohen, M.D. and Rolando M. Bueno, M.D. The dates should read 1970-1971.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY—Myung S. Lee, M.D., 35-44 28th Street, Astoria, New York 11106. Ewha University (Korea) 1964. Board eligible. Group or solo. Available January 1973.

GENERAL MEDICINE (INDUSTRIAL)—James C. Mitchell, M.D., Millside Manor, #1-E, Delran, New Jersey 08075. Medical College of South Carolina 1961. Board eligible. Subspecialty, urology. Prefer work in industry in South Jersey. Available January 1973.

Robert S. Stone, M.D., 4 Barker Drive, Stony Brook, New York 11790. Einstein, 1959. Special interest, trauma. Solo or Hospital Emergency Room. Available.

INTERNAL MEDICINE—David S. Lerman, M.D., 207 Oak Street, Danville, Pennsylvania 17821. Hahnemann 1968. Board eligible. Group or partnership. Available July 1973.

Ronald E. Grossman, M.D., 1212 Pine Avenue West, Apt. 801, Montreal 112, Quebec, Canada. Manila 1966. Board certified. Subspecialty, allergy. Group, partnership, or solo. Available July 1973.

David J. Meltz, M.D., 203 Valley Road, Middletown, Rhode Island 02840. NYU 1968. Board certified. Group or partnership. Available July 1973.

Mirza Ashraf, M.D., 950 49th Street, Brooklyn 11219. Pakistan 1967. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital. Available, July 1973.

Stephen A. Anish, M.D., 33 North Third Avenue, Mount Vernon, New York 10550. George Washington 1968. Board eligible. Group or partnership. Available July 1973.

NEUROLOGY—Robert H. Friedman, M.D., 1249 Park Avenue, Apt. 17-B, New York, New York 10029. Jefferson 1969. Board eligible. Group, partnership, associate, or solo. Available July 1973.

K. R. Shetty, M.D., U. S. Naval Hospital, Philadelphia, Pennsylvania 19145. India 1964. Board eligible. Subspecialty, pediatric neurology. Solo or partnership. Available June 1973.

OBSTETRICS-GYNECOLOGY—Arthur Howard, M.D., 6729 Doolittle Drive, Edwards AFB, California 93523. Hahnemann 1967. Board eligible. Partnership. Available July 1973.

Mohammad H. Saidi, M.D., 8 Bell Terrace, Belleville 07109. Tehran 1967. Hospital, group, associate. Available July 1973.

OPHTHALMOLOGY—Robert Heidenry, M.D., Route 6, Box 198-4. Port Orchard, Washington 0866. St. Louis 1967. Group or partnership. Available July 1973.

M. B. Kayani, M.D., 2110 Westbury Court, Brooklyn, New York 11225. King Edward (Pakistan) 1967. Board eligible. Group, partnership, or association. Available July 1973.

ORTHOPEDICS—Larry Katz, M.D., 244 Fieldston Terrace, Apt. 4-L, Bronx, New York 10471. Temple 1968. Board eligible. Solo, partnership, or group. Available July 1973.

Surrender M. Grover, M.D., 89 Park Avenue, Newark 07104. MA Medical (India) 1966. Group, solo, or partnership. Available July 1973.

Ching-Jen Wang, M.D., 435 Hanover Avenue, Staten Island, New York 10304. Taiwan 1965. Board eligible. Partnership, group, solo. July 1973.

Jay B. Bosniak, M.D., 19 Hemphill Road, Eatontown, New Jersey 07724. Jefferson 1966. Board certified. Group, solo, or partnership—preferably Morris, Somerset, Bergen, or Monmouth Counties. Available July 1973.

Shin Young Kang, M.D., 10892 Pine Street, Taylor, Michigan 48180. Yonsei (Korea) 1963. Board eligible. Subspecialty, hand surgery. Solo or partnership. Available July 1973 or before.

PATHOLOGY—Horn Min, M.D., 35-44 28th Street, Astoria, New York 11106. Seoul University (Korea) 1961. Board certified. Group or partnership. Available January 1973.

Mark A. Cohan, M.D., 5407 Greenfield Drive South, Portsmouth, Virginia 23703. Western Reserve 1966. Board certified AP and CP. Group or associate. Available July 1973.

T. V. Vaidyanathan, M.D., Sinai Hospital, Baltimore, Maryland 21215. Trivandrum (India) 1962. Group or institution. Available July 1973.

PEDIATRICS—Vinnakota V. Rao, M.D., 10 Marshall Street, Irvington, New Jersey 07111. Guntur (India) 1967. Board eligible. Group, partnership, or solo. Available July 1973.

K. Wigneswaran, M.D., 98-15 Horace Harding Expressway, Apt. 10-L, Corona, New York 11368. Ceylon 1966. Board eligible. Hospital, group, or partnership. Available.

PLASTIC AND RECONSTRUCTIVE SURGERY—M. R. Jayasanker, M.D., 800 Old Willow Road, Wheeling, Illinois 60090. Madras (India) 1962. Board eligible. Group or partnership. Available July 1973.

SURGERY—Ron Lapin, M.D., 950 49th Street, Brooklyn, New York 11219. Indiana 1968. Subspecialty, vascular surgery. Board eligible. Solo, partnership, or group. Available July 1973.

UROLOGY—Man Mohan Gursahani, M.D., 1427 Peacock Lane, Brentwood, Missouri 63144. India 1964. Board eligible. Group, partnership, or solo. Available July 1973.



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1. Gordon, E. E. and Haas, A., Indust. Med. & Surg. 28:217, May, 1959.

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Governmental Health Care Programs and the Physician

James E. D. Gardam, M.D., Medical Director
Government Health Programs
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Regular and Customary Charges

The history of the development and passage of Title XIX of the amendments of the Social Security Act (Medicare) indicates that the final law was a compromise which required the balancing of many social and economic forces. One of the firm tenets of organized medicine during the development of the legislation was that physicians not be restricted by fee schedules but be permitted to charge their regular and customary fees. The cumulative effect of all forces resulted in the inclusion of these features in the Medicare law.

Services by physicians are reimbursable on a *reasonable charge* basis that is determined by the physician. It must be appropriate to the service rendered, must be medically necessary, and be his *customary* charge to all his regular (below age 65) patients. The regular and customary charge for physician services may not be higher than the *prevailing* fee for similar services in the geographic (socio-economic) area.

It was not the intent of Congress nor of our profession to establish a fixed schedule that would apply nationwide, in a particular locale, or even to the physician himself. Rather, for a given medically necessary procedure or service by physicians of comparable skill and training, there is a range. For a charge to be reimbursable, the fee claimed must be consistent with customary charges for the same service to non-Medicare patients and consistent with the general level prevailing in the area.

Prior to the passage of Medicare legislation, physicians were experienced primarily with third party payment involving two broad groups: Blue Shield or similiar plans and insurance carriers. The former provided reimbursement on a fee basis subject to income limitations of the enrolled family. The insurance carrier used broader and more flexible guidelines and fee schedules. Fees were questioned only when they were grossly out of line. Experience resulted in a subsequent premium change not feasible under Medicare.

In Medicare and Medicaid health programs, a more detailed and complex procedure is followed for reimbursement of physician services. Skilled, medical-oriented personnel and computer services are used to collect and collate the number and kinds of services or procedures rendered by a physician, his total and individual usual charges for each service or procedure, his gross earnings, the charges prevailing in the physician's geographical area, and so on. Each claim is automatically compared with this profile to determine if it meets the criteria of reasonable, customary, and prevailing charges.

Such a detailed claims review procedure provides the Medicare carrier valid statistical information for evaluating all claims and the ability to control unusual costs or abuses.

This system *does* permit a physician to claim a higher fee for a more complicated or extensive service provided it is medically necessary to perform new services and be reimbursed. It does allow for a rise in the entire price structure of the provider (subject to present economic guidelines) and it does permit very prompt and full reimbursement if attention is paid to the rational guidelines for preparing claims.

A physician need not accept assignment and may deal directly with his patient for reimbursement. In the insurance industry assigned payments are "payments on account" in behalf of the insured patient and represent only the policy liability involved. The remainder of the medical expense is the responsibility of the patient to negotiate concerning the justice of the actual charges being in excess of "reasonable." In Medicare and Medicaid programs, for assigned claims, the carrier, in essence, performs all evaluation functions, pays

directly to the physician, and is able to process claims with efficiency and dispatch.

Reimbursement is a complicated subject. In medical meetings, large and small, more heat and less light are generated by discussions on profiles, regular and customary charges, prevailing fees, computer analysis, and the like, than by any other subject in reference to Medicare and Medicaid. The fault is not so much in these areas as in claim preparation by the physician. Most complaints concerning payment actually derive from other subjects to be described in future articles—unnecessary services or laboratory work, concurrent care, inadequate documentation of the claim form, hospital records, and *overutilization*. Frequently, the system is blamed for the errors of omission or commission by those who use the system.

A complaint referrable to the system is similar to a symptom expressed by a patient. The diagnosis of the problem lies elsewhere. A complaint is often a generalization produced by a specific dissatisfaction.

The etiology of the complaint is usually some fault on the part of the provider. The appropriate answer is: "Do not blame the system because a specific fee was disallowed. Call or write for an explanation, you certainly will receive an answer."

Chiropractic Under Social Security Amendments

In October 1972, the Congress amended the Social Security Act to provide payments of chiropractors' fees to the Act's beneficiaries. The following clarification is abstracted from an article by Richard D. Lyons in the November 19, 1972, *New York Times*.

After seven years of ceaseless lobbying, chiropractors have finally succeeded in getting themselves included in the multi-billion dollar Medicare program. The cast of characters involves the small but determined band of chiropractors, their patients, lobbyists for and against their cause, Senators and Representatives, federal officials, campaign contributions, and tens of thousands, if not millions, of pieces of mail.

After all the effort expended on this legislative tug-of-war, it appears that while chiropractors have won the battle to have their services included in Medicare, they may have lost the war because the same act markedly restricts the treatments for which they will be paid and reduces their participation in the Medicaid program.

Thus, the windfall of $110 million a year that the chiropractors had hoped to gain by their inclusion in Medicare—which would about double their total national gross income—has been cut to $35 million. And, because of the Medicaid changes this may not only vanish altogether but also may be less than they are now receiving from any federal program. The changes leave the chiropractors more at the mercy of the doctors of medicine who, in the words of the American Medical Association, regard chiropractic as an "unscientific cult." The events that finally led to the inclusion of chiropractors in Medicare started in 1965 when Congress was drawing up the Medicare program. This pointedly excluded coverage of chiropractic services from the health insurance program for people 65 and older.

Every Congress since then has seen Senators and Representatives introducing scores of bills aimed at achieving the chiropractors' goals. For example, in the 92nd Congress that just ended, 97 Congressmen introduced a total of 72 pro-chiropractic bills. Staff aides at the two key Congressional committees that dealt with the chiropractic legislation, the House Ways and Means Committee, and the Senate Finance Committee expressed astonishment over the sacks of pro-chiropractic mail that never seemed to diminish, in contrast to other issues that peaked and were then forgotten.

Two former HEW department secretaries, Wilbur J. Cohen and Robert H. Finch, strongly opposed the inclusion of chiropractors, and Secretary Elliot L. Richardson (now resigned) is believed not to be favorable to them.

In 1968 the department issued a 309-page report that concluded: "Chiropractic theory and practice are not based upon the body of basic knowledge related to health, disease, and health care that has been widely accepted by the scientific community."

One Congressional aide who observed the weeks of legislative footwork involving the chiropractors said the issue eventually hinged not on being for or against chiropractic but on being against the American Medical Association.

"The AMA is a lot richer and many Congressmen resent the large sums it gives to their opponents," he said. Mr. Cruikshank, the opponent of chiropractic who has also crossed swords with the AMA said he had been approached by one Congressman who had said: "Why are you of all people plugging for the AMA?" Mr. Cruikshank added, "a lot of Congressmen view the chiropractor as the guy who will care for the common man, the sort of guy who will even make house calls."

Most of the shaping of the chiropractic care provisions was conducted by subgroups of the Senate Finance and the House Ways and Means Committees. Representative Wilbur D. Mills, the Arkansas Democrat, heads the Ways and Means Committee. He had blocked chiropractic services in the past. Some sources attributed Mr. Mills' stand to annoyance with the AMA while others believed he was tired of standing up almost alone to the pressure of the chiropractors.

But in agreeing to accept chiropractic services, the conferees, with the advice of HEW officials, restricted Medicare coverage to "subluxation" of the spine, a form of treatment that no one has as yet successfully defined. In addition, x-rays, for which Medicare will not pay, must prove the "subluxation." To further compound the issue, HEW has ruled that doctors of medicine must agree that a subluxation has in fact occurred and approve the reimbursement. Also the conferees agreed to restricting chiropractic services under Medicaid to "manual manipulation of the spine," thus ruling out x-rays, vitamin shots, heat treatment, and other forms of treatment that may have been covered.

The Social Security amendments, including chiropractic services, were passed by Congress and signed by the President. But no one is quite sure where this leaves the chiropractor.

Committees at the Health, Education and Welfare Department are drafting regulations for the chiropractors but they are unclear how the word "subluxation" should be defined. Officials of the nation's largest Medicaid program in New York City, where chiropractors were reimbursed $2 million last year, admit they are baffled over the changes.

Rutgers Medical School Affiliates with Princeton Medical Center

Years of cooperation were capped off by the affiliation, last fall, of the Medical Center of Princeton with Rutgers Medical School.

Princeton thus becomes the third medical center to be affiliated with Rutgers Medical School, Raritan Valley Hospital in Green Brook being the prime affiliate and Hunterdon Medical Center the other cooperating institution.

Rutgers Medical students will now be able to receive training at Princeton Hospital. Since future affiliations will depend on the number of medical school enrollments, current estimates point to at least two more institutions to follow Princeton's move. As of now, a ratio of five beds per student is required.

ANNOUNCEMENTS

Clinical Application of Basic Sciences

The Burlington County Memorial Hospital offers the following programs for January and February, in its series on the clinical application of the basic sciences:

February 8	High Risk Pregnancy
February 15	Uterine Anomalies
February 22	Oral Contraceptive Agents
March 1	Basic Defense Mechanism of the Lung
March 8	Thyroid Disease
March 15	Aesthetic Surgery
March 22	Use of Isoenzymes in Diagnosis
March 29	Pre and Postoperative Medical Evaluation
April 5	Management of Leukemia
April 12	Marital and Sexual Counseling

Lectures are supported by grants from Merck, Sharp, and Dohme, and the sessions convene promptly at 3:30 p.m. at the Summey Building across from the hospital. AAFP gives one and a half credits per lecture. Additional information may be obtained from the Department of Medical Education, Burlington County Memorial Hospital, Mount Holly.

Radiologic Seminars

Rutgers Medical School (CMDNJ) announces the following program in its series of seminars in radiology:

February 14	Data Acquisition Systems Mrs. Dorothea Aronson Milton Hershey Medical Center
March 14	Technics of Studying Strokes Ray Brinker, M.D. St. Vincent's Medical Center
April 18	Diagnosis of Renal Masses Howard M. Pollack, M.D. Episcopal Hospital
May 16	Head and Neck Cancer Patrick J. O'Kelley, M.D. St. Peter's General Hospital

Sessions convene at 5 p.m. in Link Room 203 at the Basic Science Building, Rutgers Medical School, New Brunswick—no fee. Further information may be obtained by writing to Charles P. diLiberti, M.D., Raritan Valley Hospital, 257 Greenbrook Road, Green Brook, New Jersey 08812.

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in a series on continuing education in psychiatry:

February 14	Medical-Surgical Emergencies in Psychiatry — Seymour Kuvin, M.D.
March 1	Adolescent Psychiatry — Adolescent Personality — Arnold M. Kallen, M.D.
March 14	Adolescent Psychiatry — Clinical Studies Arnold M. Kallen, M.D.
March 29	Adolescent Psychiatry — Management Arnold M. Kallen, M.D.
April 11	Pharmacotherapy of Mental Disorder George M. Simpson, M.D.
April 26	Pharmacotherapy of Mental Disorder Nathan S. Kline, M.D.

Sessions are held at the hospital, 19 Prospect Street, Summit, and convene promptly at 3 p.m. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education at the hospital.

Graduate Lectures in Surgery

Additional programs in the "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School (CMDNJ) have been listed as follows:

February	5	Cancer of the Breast George P. Rosemond, M.D., Professor of Surgery Temple University Health Center
March	19	Acute Aspiratory Distress Watts R. Webb, M.D., Professor of Surgery SUNY, Upstate Medical Center
April	16	Experience in Civilian Disasters Worthington G. Schenk, Jr., M.D. Chairman, Department of Surgery SUNY at Buffalo

The lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking areas "M" at 12th and Bergen Streets. Other lectures will be announced in a later issue. For further information, write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital unit, CMDNJ, 65 Bergen Street, Newark 07107.

Graduate Program in Internal Meaicine

Rutgers Medical School has instituted a postgraduate program in internal medicine for interns and residents who wish to specialize in this field. The program consists of a year's internship followed by three years of residency. The first year's goal is to allow the intern to develop his skills in diagnosis and treatment to the point where he is able to assume full responsibility for most patients. Immediate supervision is provided by the resident and attending physicians.

The first-year resident has continued exposure to a full range of medical problems along with responsibility for the supervision of interns and the opportunity to assume fuller responsibility for patient care. The major portion of the second year of residency is spent pursuing a subspecialty elective in cardiology, hematology, gastroenterology, neurology, oncology, psychiatry, or pulmonary diseases. Those who wish will be able to spend an extra year in their subspecialty.

Third-year residents serve as chief medical residents in each hospital. Their responsibilities are for over-all supervision of patient care by the house staff. The chief resident plays a major role in the educational program as well.

It is a highly integrated plan, involving four different hospitals, each with a major orientation different from the others. The four hospitals involved are Raritan Valley Hospital in Green Brook, Muhlenberg Hospital in Plainfield, the Medical Center at Princeton, and Hunterdon Medical Center, Flemington. Having several hospitals involved is advantageous, since the scope of internal medicine is such that no single institution can readily provide in-depth exposure to all the many varieties of practice which today's students and house officers often have as their goals."

The department of medicine is currently accepting applications for the postgraduate program in internal medicine for the academic year beginning July 1, 1973. All inquiries should be directed to Hadley L. Conn, Jr., M.D., Chairman of the Department of Medicine, Rutgers Medical School, P.O. Box 101, Piscataway 08854.

Obstetrics-Gynecology Program in Newark

The New Jersey Medical School (CMDNJ) announces a graduate seminar in obstetrics and gynecology, March 20 and 21 at the Holiday Inn at Newark Airport. The seminar has the concurrence of the Office of Continuing Medical Education. It is accredited by the New Jersey Academy of Family Practice which awards 16 hours for attendance at this colloquium. For more details, write to Alvin Langer, M.D., Department of Obstetrics and Gynecology, New Jersey Medical School, 65 Bergen Street, Newark 07103.

Course on Emergency Medicine

The Playboy Plaza Hotel in Miami Beach is the site of a seminar on Emergency Medicine. The dates are March 21-24, 1973. The sponsoring agencies (in cooperation with the University of Miami School of Medicine) are the Florida Chapter of the American College of Emergency Physicians and the Emergency Department Nurses Association. All emergency personnel—physicians, nurses, and technicians—are invited. For more details please write to J. Clifford Findeiss, M.D., 11130 S.W. 173rd Terrace, Miami, Florida 33157.

EENT Colloquium in England

The next New York Eye and Ear Infirmary Clinical Conference will be held April 30 through May 4, 1973, in London, England. Theme will be the British and American approach to clinical problems in ophthalmology and otolaryngology. Guest speakers will be from the United States as well as from the Institute of Ophthalmology and Moorfields Hospital in England. Scientific tours of the Institute and Moorfields have also been arranged during the conference. Address all inquiries to: Jane Stark, Conference Registrar, New York Eye and Ear Infirmary, 310 East Fourteenth Street, New York 10003.

MEETINGS OF MEDICAL INTEREST

This listing has been compiled by the Academy of Medicine of New Jersey. For additional information, including exact time of meetings, write to the society or hospital listed.

1973

February

8 **Academy of Medicine of New Jersey**
Helene Fuld Hospital
Trenton
Current Burn Treatment

14 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Diet and Diseases of the Colon

14 **Academy of Medicine of New Jersey**
Fair Oaks Hospital, Summit
Medical-Surgical Emergency in Psychiatric Practice

14 **Academy of Medicine of New Jersey and Jersey City Medical Center**
Jersey City Medical Center
Australian Antigen

14 **Academy of Medicine of New Jersey**
B. S. Pollak Hospital
Jersey City
Hypertension

15 **Academy of Medicine of New Jersey**
St. Francis Hospital
Trenton
Respiratory Care

15 **Academy of Medicine of New Jersey and Englewood Hospital**
Englewood Hospital
Englewood
Interesting Chest X-rays

20 **Academy of Medicine of New Jersey**
St. Michael's Medical Center
Newark
Thoracic and Cardiovascular Cases

21 **Academy of Medicine of New Jersey and Jersey City Medical Center**
Jersey City Medical Center
Antibiotic Prophylaxis in Surgical Patients

21 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Mechanisms of Antibiotic Activity

22 **Academy of Medicine of New Jersey and Radiological Society of New Jersey**
Hospital Center at Orange
Orange
Interesting X-rays of the Month

24 **Academy of Medicine of New Jersey**
Hunterdon Medical Center
Flemington
Endotoxic Shock

28 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines County Hospital
Paramus
Electrophysiologic Basis of Cardiac Arrhythmias

28 **Academy of Medicine of New Jersey and Jersey City Medical Center**
Jersey City Medical Center
Complications of Hyperalimentation

March

1 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

3 **St. Barnabas Medical Center**
Livingston
Post Anesthesiology Nursing

7 **Academy of Medicine of New Jersey**
St. Michael's Medical Center

Newark
Proper Use of Cardiovascular Drugs

8 **Academy of Medicine of New Jersey and Englewood Hospital**
Englewood Hospital
Englewood
Interesting Chest X-rays

13 **Academy of Medicine of New Jersey**
Bloomfield
Dermatologic Therapy

13 **Academy of Medicine of New Jersey**
Paul Kimball Hospital
Lakewood
Proper Use of Blood Gases

14 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

14 **Academy of Medicine of New Jersey**
Helene Fuld Hospital
Trenton
Proper Use of Antibiotics

20 **Academy of Medicine of New Jersey**
South Amboy Memorial Hospital
South Amboy
Hepatitis

20 **Academy of Medicine of New Jersey**
St. Michael's Medical Center
Newark
Thoracic and Cardiovascular Cases

21 **Academy of Medicine of New Jersey**
Hospital Center at Orange
Radiotherapy of Breast Carcinoma

22 **Academy of Medicine of New Jersey and Radiological Society of New Jersey**
Hospital Center at Orange
Interesting X-rays of the Month

26 **Academy of Medicine of New Jersey**
New Jersey State Hospital, Ancora
Hammonton
Difficult Diabetic Patients

27 **Academy of Medicine of New Jersey**
Warren Hospital
Phillipsburg
Medical-Legal Aspects in Surgery

28 **Academy of Medicine of New Jersey**
Perth Amboy Memorial Hospital
Perth Amboy
Differential Diagnosis of Jaundice

28 **Academy of Medicine of New Jersey**
St. Michael's Medical Center
Newark
Host Deficiencies

28 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Treatment of Shock

28 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

April

4 **Academy of Medicine of New Jersey**
Newark Beth Israel Medical Center
Newark
Modern Treatment of Cancer

4 **Hamilton Hospital**
Trenton
Occlusive Peripheral Vascular Disease

5 **Academy of Medicine of New Jersey**
St. Barnabas Medical Center
Livingston
Soft Contact Lenses

11 **Academy of Medicine of New Jersey**
B. S. Pollak Hospital
Jersey City
Proper Use of Antibiotics

11 **Academy of Medicine of New Jersey**
Rutgers Medical School
New Brunswick
Coronary Artery Surgery

11 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorder

17 **Academy of Medicine of New Jersey**
Martland Hospital
Newark
Thoracic and Cardiovascular Cases

26 **Academy of Medicine of New Jersey and the Radiological Society of New Jersey**
The Hospital Center at Orange
Interesting X-rays of the Month

26 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorders

30 **Academy of Medicine of New Jersey**
Ancora Psychiatric Hospital
Hammonton
Hypertension

May

12-15 **The Medical Society of New Jersey**
Haddon Hall, Atlantic City
Annual Meeting

13 **Academy of Medicine of New Jersey**
Princeton University
Princeton
Heavy Particles in Radiation Therapy

16 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Existential Psychiatry

23 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Diabetic Neuropathy

24 **Academy of Medicine of New Jersey and the Radiological Society of New Jersey**
The Hospital Center at Orange
Interesting X-rays of the Month

30 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Difficult Diabetic Patient

31 **Academy of Medicine of New Jersey**
Rutgers Medical School
New Brunswick
Annual Awards Dinner

June

20 **Academy of Medicine of New Jersey and the Radiological Society of New Jersey**
The Hospital Center at Orange
Interesting X-rays of the Month

20 **Academy of Medicine of New Jersey**
Rutgers University Medical School
New Brunswick
Radiobiology

26 **Academy of Medicine of New Jersey**
Warren Hospital
Phillipsburg
Difficult Diabetic Patient

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OBITUARIES

Dr. Matthew A. Barbera

At the untimely age of 47, Matthew A. Barbera, M.D., died on December 12, 1972. He was a general practitioner, serving the people of Elizabeth and vicinity, and was active in committee work with our Union County Medical Society. A 1958 graduate of the Medical School at the University of Bologna, he was a Fellow of the American Academy of Family Practice and on the staffs of Alexian Brothers and St. Elizabeth Hospitals in Elizabeth.

Dr. Charles B. Bleasby

One of our senior members, Charles B. Bleasby, M.D., died on December 3, 1972, at the age of 85. He had served the people of Bergen County for sixty years, having won his M.D. at Bellevue in 1909. He was an internist who was affiliated for many decades with the Passaic General Hospital. He lived in Garfield, New Jersey, and had several tours of duty as health officer of that community. In 1959, Dr. Bleasby was a laureate of our Golden Merit Award. He was active in the affairs of the Bergen County Medical Society.

Dr. Charles C. Cohan

At the age of 73, Charles C. Cohan, M.D., died on November 18, 1972. A 1927 Bellevue graduate, Dr. Cohan was a long-established Mercer County general practitioner with offices in Trenton. He was, for many decades, on the staff of the Mercer Hospital there. Dr. Cohan retired from practice in 1970 and was active in committee work for our Mercer County Medical Society.

Dr. John D. Dickson

One of the senior members of our Bergen County Medical Society, John D. Dickson, M.D., of Bogota, died on December 11, 1972 at the age of 87. He had received his M.D. degree at Western Reserve in 1911 and served for many years as a senior attending at the Hackensack Hospital. He was a 1963 laureate of the Golden Merit Award of The Medical Society of New Jersey.

Dr. Malcolm S. Edgar

Born in 1893, Malcolm S. Edgar, M.D., died on December 5, 1972, at the age of 79. Dr. Edgar, a retired internist, had for years been attending in medicine at the Overlook Hospital in Summit. He was a 1922 alumnus of the Medical School at the University of Pennsylvania and belonged to our Union County Medical Society. Only last year (1972), he was a recipient of our Society's Golden Merit Award. Dr. Edgar practiced in Summit during most of his professional career.

Dr. Leo L. Goldman

On December 29, 1972, death came to Leo L. Goldman, M.D., of Trenton, at the age of 64. He was a 1936 alumnus of the Jefferson Medical College of Philadelphia, and was affiliated with the staff of the Mercer Hospital in Trenton. He was a general practitioner with special interest and skill in dermatology, and active in organizational affairs for the American Academy of Family Practice. Dr. Goldman was a member of the Academy of Medicine of New Jersey.

Dr. Albert J. Hagovsky

Albert J. Hagovsky, M.D., a Bergen County general practitioner with special interest and skill in obstetrics, died on November 29, 1972. He had served the people of the Carlstadt area for 30 years. Dr. Hagovsky was a 1940 graduate of the Medical School at Georgetown University in Washington. He was active in the affairs of the American Academy of Family Practice and was 58 years old at the time of his death. He was on the staff at St. Mary's Hospital in Passaic.

Dr. James P. Harbeson

A well-known south Jersey radiologist, James P. Harbeson, M.D., died on December 15, 1972. Born in 1913, he was in the class of 1938

at the Medical School of the University of Pennsylvania. Dr. Harbeson was an attending radiologist at the Cooper Hospital in Camden and a member of our Camden County Medical Society. He was a Fellow of the American College of Radiology and board-certified in his chosen specialty.

Dr. Maxwell Littman

Born in 1914, Maxwell L. Littman, M.D., died on Christmas Day, 1972, at the age of 58. He was a member of the class of 1950 at Tulane. Dr. Littman was well known in the field of microbiology and had been Associate Professor of Medicine at New York University. He was board-certified in microbiology. Dr. Littman was a member of our Bergen County Medical Society and, at the time of his death, he was practicing in Demarest. He was a member of the staff at the Englewood Hospital.

Dr. John B. Makin

Long a well-known figure in New Jersey medicine, John B. Makin, M.D., died on Christmas eve 1972. He was 84 years old at the time of his death. Dr. Makin had been identified with the Monmouth County Component Medical Society, having practiced in Asbury Park until his retirement to Point Pleasant in 1964. Between 1912 and 1927, he was a family doctor in West Virginia. In 1927 he took a residency in ophthalmology and otolaryngology at the New York Eye and Ear Hospital and the following year opened a practice in Asbury Park. He was attending ophthalmologist and otolaryngologist at Jersey Shore Medical Center in Neptune, Monmouth Medical Center in Long Branch, and the Point Pleasant Hospital. Dr. Makin was laureate of our State Society's Golden Merit Award in 1961.

Dr. Lawrence A. McCay

A massive cerebral hemorrhage took the life of Lawrence A. McCay, M.D., of Florence, New Jersey, on December 5, 1972. Dr. McCay had been school physician for several municipalities in the Burlington County area, and was a member of our Burlington County Component Medical Society. He was on the staff at the Mercer Hospital in Trenton. A general practitioner, he had received his M.D. degree in 1954 at Temple. He was also a consultant to the Bordentown Youth Correctional Institute as well as the Johnstone Training Center. Dr. McCay was only 46 years old at the time of his death.

Dr. Victor Tepper

A former resident of Maplewood, Victor Tepper, M.D., died on December 24, 1972, at the age of 61. He was a 1936 graduate of the Medical School at Rush. A Fellow of the American College of surgeons, he was long identified with the Beth Israel Medical Center in Newark and was senior surgeon at Saint Barnabas Hospital in Livingston. Dr. Tepper retired to Florida in September 1972, but retained membership in the Essex County Medical Society.

Dr. Leslie Vermes

One of Sussex County's senior family doctors, Leslie Vermes, M.D., died on December 2, 1972, at the age of 63. He was a 1933 medical alumnus of the University of Vienna and practiced for three decades in Sussex, New Jersey. Dr. Vermes was Treasurer of the New Jersey Chapter of the American Academy of Family Practice and was on the staff of the Alexander Linn Hospital in Sussex. He was actice in the affairs of the Sussex County Medical Society.

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BOOK REVIEWS

Diabetes Mellitus: Diagnosis and Treatment, Vol. 3. Stefan E. Fajans, M.D. and Karl E. Sussman, M.D., Editors. New York, American Diabetes Association, 1971. Pp. 430. ($5.75)

Since 1964, the American Diabetes Association has been publishing, every few years, a practical and concise summary of up-to-date information for the practitioner interested in his specialty. But this year the editors of this authoritative compendium (both outstanding researchers in diabetes) went much further than before. The list of the contributors looks like "Who's Who" in diabetology.

The last few years have brought such *embarras de richesse* of research in this specialty—frequently with opposite results and conclusions—that an innovative approach is thus called for. Here the individual chapters are presented by authorities mostly interested in their particular subspecialty. When their conclusions were at variance with those of another investigator, his dissertation followed the paper of the first one. In this way, the reader becomes acquainted with the newest investigative procedures in different medical centers and gets a much deeper understanding of the fluid concepts rather than a cut-and-dried didactic lecture. These last few years can be described as the most critical stage in the investigation of diabetes since the discovery of insulin.

This book is recommended primarily for the physician who has a thorough understanding of the subject rather than the general practitioner who wants pat answers to his particular problem.

Otto Brandman, M.D.

The Descendants of Doctor Benjamin Lee and Dorothy Gordon. Maurice G. Gordon, M.D. *et al.* Ventnor, (NJ), Ventnor. Publishers, 1972. Pp. 176. Illustrated ($8.50)

This unusual book represents a collective effort on the part of several generations of one family. The patriarch, Dr. Benjamin Lee Gordon of Ventnor, who died in 1965 at the age of 94, was a competent Hebrew scholar. In his numerous writings on medical history, the references to Hebraic medicine show the clearest evidence of original research. Quotes from his pen are interspersed haphazardly throughout the text.

Had the volume under consideration been intended solely for private circulation among relatives and friends there would have been no reason to criticize the unconcealed pride of family, verging on self-adulation which pervades it. Since the work is, however, being exposed for public consumption a reviewer may properly remove his kid gloves before preparing his comments.

Dr. Cyrus Gordon's attempt to establish a link between the ancient Hebrews and Central America on the basis of a single inscription is certainly intriguing, but the article at once brings to mind the Kensington runic stone about which scholars have been arguing for almost a century. I suspect that in this case again one must remain wary until further evidence is forthcoming. Incidentally the *Aeneid* has the Trojans rather than the Romans approaching the Lavinian shore by sea (p. 16).

Dr. Maurice Bear Gordon, author of the compendious *Aesculapius Comes to the Colonies* has contributed an article, "Dr. Samuel Drowne's Journal," adorned by a complete but needless reproduction of the the manuscript, which adds nothing to scholarship, but much to the cost of the book. In fact this so-called "lost" journal is well known to scholars and has been in print for almost a hundred years. It is of much less interest to the medical historian than the informative diaries written by Drowne during the earlier years of the Revolution.

Among the articles contributed by the younger generation (all of which showed varying degrees of originality) I particularly liked "What's New with Edmund Burke" by Jonathan Benjamin Baker, "Allergy and Ecology" by Gordon Philo Baker, and the one on Mexican "spirit-companions" by Rachel Kendall Gordon.

As for the efforts in search of the Muses, I found the musical criticisms too sophomoric, even for Vancouver, the poetry too personal and enigmatic to move me, the sculpture easily forgettable. I do believe, however, that Deborah J. Gordon has a genuine mastery of pure line, and found her woodcuts and especially the two portrait sketches impressive and powerful. If she ever finds herself in need of a subject I should like to volunteer.

Morris H. Saffron, M.D.

Urinary Tract Infection and its Management. Donald Kaye, M.D., Editor. St. Louis, Mosby, 1972. Pp. 290. Illustrated. ($22.50)

This book considers the entire subject of urinary tract infection from its definition through diagnosis, pathology, and epidemiology, and on to its medical and surgical management. Each of the thirteen authors has presented his material carefully and precisely, so that even the practitioner who deals with this disease each day is amazed at the number of fine distinctions here uncovered. For example, clean catch urinary colony counts over 100,000 per milliliter are significant in the female, while those over 10,000 per milliliter in the male "probably represent significant bacteriuria."

In management, specific recommendations are made such as radiographic evaluation of *all* children, *all* men, and most women with a single documented episode of urinary infection. Also, following treatment, repeat urine cultures are advised at 2 weeks, 6 weeks, and 6 months after cessation of therapy.

Dr. Kaye has edited this relatively short book superbly by eliminating any duplication of material, by writing the book in simple language, and by orienting it to the needs of the practicing physician. No longer are we told to wait for the results of a urine culture in a *symptomatic* patient; we begin therapy after obtaining the urine culture and switch drugs later on, if necessary.

This is an excellent book for the practitioner to add to his library. He will refer to it on a regular basis, whether he be a family physician, pediatrician, internist, urologist, or nephrologist. Its high level of academic achievement, together with its precision, conciseness, and easy readability, make it an outstanding acquisition for any physician who is treating urinary infections. Try it—you'll like it.

Robert H. Stackpole, M.D.

ADDITIONAL PERSONNEL

See Page 84

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CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage.

WARNINGS: If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastic breast carcinoma. If this occurs, the drug should be discontinued.

ADVERSE REACTIONS: Cholestatic Jaundice • Oligospermia and decreased ejaculatory volume. • Hypercalcemia particularly in patients with metastic breast carcinoma. This usually indicates progression of bone metastases. • Sodium and water retention. • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia.

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ADDITIONAL PERSONNEL

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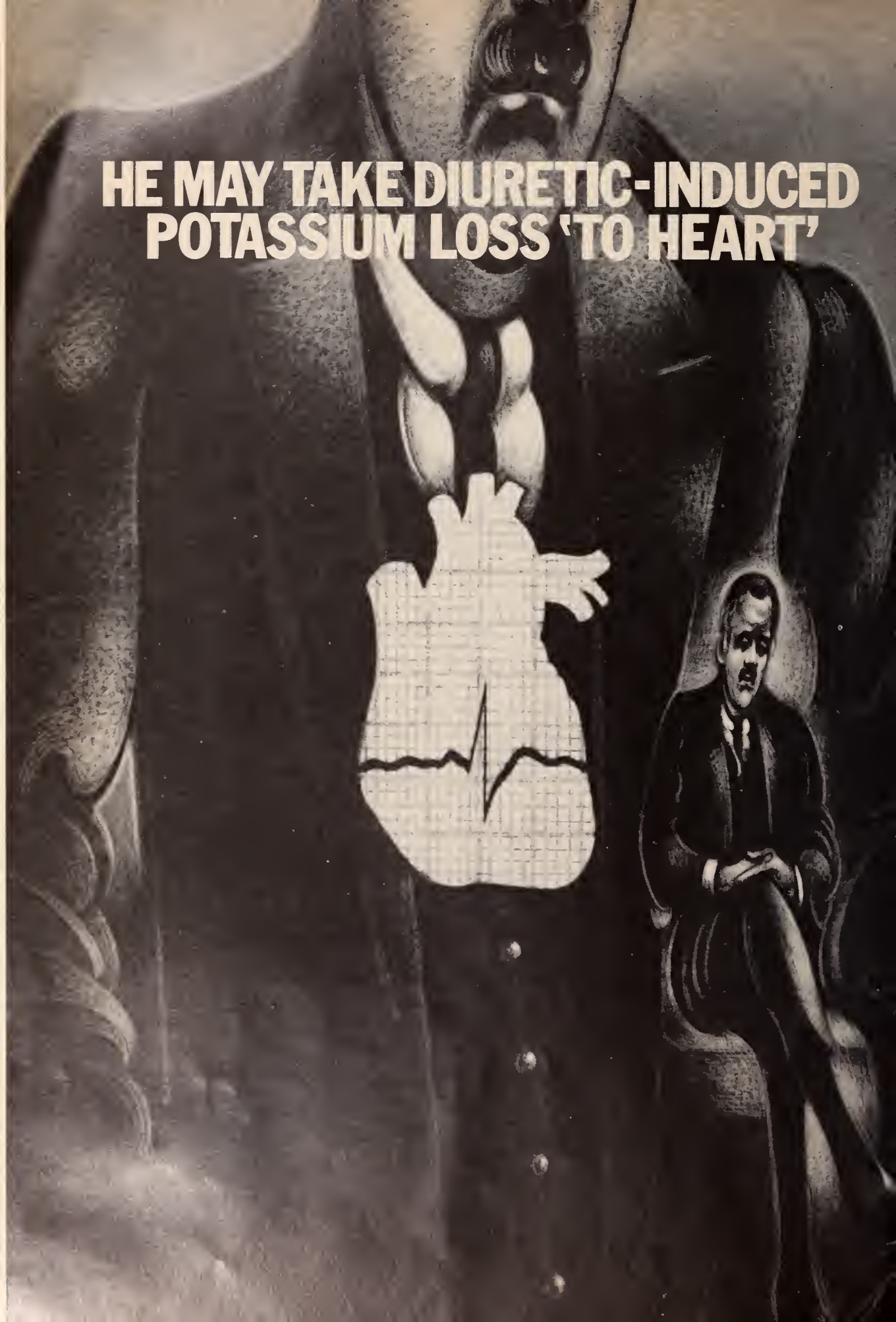
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Precautions: The following should be accomplished at regular intervals: Careful detailed history for disease being treated and detection of earliest signs of adverse reactions; completa physical examination including check of patient's weight; completa weekly (especially for the aging) or an every two week blood check; pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

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EDITORIALS

Physicians' Union

In America—and perhaps only in the USA—most of our factory workers own their own cars, and their homes include modern labor-saving devices. Principal reason for this high standard appears to be the success of the labor unions in raising workers' wages to the point where most workmen can conform to this living standard. Labor unions are also properly credited with having had enough clout to get a variety of fringe benefits (vacation, sick benefits, retirement plans, and so on) for their members. With these benign examples, it is a temptation to ask why shouldn't physicians become part of the labor movement.

Speaking to this point at the AMA convention in June 1972, President Carl A. Hoffman characterized the power of a union to get these results as an example of "controlled conformity." This is an accurate phrase, since a union cannot win a reputation for responsibility, unless it can persuade its members to conform to union doctrine.

The ultimate weapon of a union is the strike or a threat of a strike. Without that, all of the union's pleas may be dismissed as simply talk. But a strike against sick patients is obviously indefensible—doubly so since the patients are rarely legitimate targets in the industrial dispute. There is also a philosophical difference in that a traditional labor dispute is between a large number of workers and a small handful of "bosses." But in doctor-patient negotiations, it is between a small number of physicians and a large number of patient-"bosses."

The recent membership survey, conducted by the Council on Medical Services, revealed that just over 20 per cent of us expressed some interest in a union or guild. However, it was evident at the membership hearings (held in each Judicial District last summer) that many who were speaking for unionism of the profession did not desire unionism's forced conformity, dues, strikes, secondary boycotts, or the problem of public resentment. And so the matter was voted upon at the special session of the House of Delegates last November. A resolution "that The Medical Society of New Jersey cooperate in the formation of a physicians' guild" was rejected—167 to 108.

Controlled conformity, in Dr. Hoffman's felicitous phrase, is not yet part of the ideal system of the medical profession.

Eating as a Social Science

What the human being eats, and how that food is prepared, is as much an element of social science as it is food science. Dr. Roy Morse of the Food Science Department at the Rutgers College of Agriculture and Environmental Science offered that reaction when asked about "health" foods, and the claims made by manufacturers and vendors.

Dr. Morse pointed out the hazy meaning of the label "health foods" as he commented on predictions about the subject. "Barrons says that by 1975 about 40 per cent of all foods will be called that." The public has become anxious about verbal contrasts between "natural" versus "synthetic," or "organic" versus "chemical," and deserves an explanation to ease that anxiety. "Cooking is a type of food processing. Once human society goes down the road, where does it stop?" asks Dr. Morse. "Indeed, once we assert our human nature, we leave behind the natural world, and must resolve that dilemma of 'natural' versus 'processed' foods."

The emotional state of mind about food differs little from the attitude toward cheese that some African tribes display. "They regard it simply as rotten milk. Although it may be technically correct for Roquefort, it is irrelevant in determining food safety."

Eating is not simply a refueling operation, it is as much a social custom as it is nourishment, "but social custom fails in deciding what is healthful and what is not."

Tradition is a possible guide. The Chinese used to bury eggs in the soil, dig them up years later, and eat them safely. But, they knew that eggs left in the open would really rot because a different kind of micro-organism would have attacked them. Today people attempt vegetarian diets without knowing how the Orientals provided proteins. The Orientals use chick peas and millet to do this. "I'm not against vegetarianism as such, but you have to know what you're doing when you take up a diet fad," explained Dr. Morse. Modern technology has provided humans with new convenience foods and invented foods that complicate the business of calculating nutritional intake. He sees the day coming when nutritional labeling will be a common practice. It will be a step forward in educating the public to a state of food awareness.

Restriction on Barbiturates

The American Medical Associaton opposes further government restrictions on barbiturates. Dr. Henry Brill, a member of the AMA's Committee on Alcohol and Drug Dependence, pointed out to the Senate Juvenile Delinquency Subcommittee that barbiturates and other sedative drugs already are subject to tight controls under a federal law—penalties for illicit sale, restrictions on refilling of prescriptions, and mandatory registration by physicians who prescribe or dispense them.

"To add to the present restrictions on barbiturates so as to reduce medical overuse would be a disservice to patients who need them," Dr. Brill said. "Not only would it be more difficult to prescribe and administer such drugs, it would raise the costs of hospital care in proportion to the additional record keeping and reporting that would be required of those institutions, where so great a proportion of sedatives are used in therapy.

"On the other hand, we vigorously support efforts to control street traffic and diversion of drugs. We also subscribe to and support the intensification of education and persuasive technics to help assure the proper utilization of these drugs in medical practice. We urge medical schools to incorporate comprehensive material on drug abuse and drug dependence in their curricula, stressing the importance of an accurate assessment of the abuse and dependence potential of patients when psychoactive drugs are medically indicated. Continuing education efforts should stem largely from drug utilization committees in hospitals where the medical staff, house officers, and nursing personnel can benefit from an ongoing evaluation of prescribing practices."

A Necropsy on Autopsy?

The Joint Commission no longer requires a certain percentage of autopsies for hospital accreditation. The decision presumably represents the combined wisdom of a group of experts on hospital standards. Yet, in a way, it is too bad. In the non-teaching hospital, the autopsy may represent the only research effort possible. The autopsy is a gage of a stimulus to good quality patient care. It is a sharp revealer of clinical acumen. To abolish the autopsy is to imply (with some arrogance) that we now know all we need to know about disease processes. But with the use of new, potent, and potentially toxic drugs, we need some way of judging both their effectiveness and their safety. With advanced surgical technics, we need a gage for evaluating them. The autopsy opens the door to appraising the human reaction to additives, pollutants, radiation, toxins, and pesticides. With so many patients dying at an advanced age, the autopsy provides new teaching and learning in geriatrics. It is true that autopsies are not profit-making activities. Most departments of pathology earn more by their work in hematology, and clinical and surgical pathology. But this hardly justifies our abandonment of the method which orginated the modern era of scientific medicine.

ORIGINAL ARTICLES

Reaction to mismatched blood transfusion is best handled by the kind of team approach here described.

Management of Mismatched Blood Transfusion Reaction*

Report of a Case

T. Gopalrao, M.D., *et al.*/Pittsburgh

Although the hazards of blood transfusion (like allergy reactions and major blood incompatability) have been reduced, the accidents due to mismatched blood transfusion do occur, even in well organized laboratories. It is estimated[1] that about 12,000 deaths occur annually in the United States alone by transfusion reactions.

Since the sequela of such an accident is a grave one, the management of this complication should be known by everyone. This paper reports such a case which was successfully managed by organized teams.

A 36-year old male was admitted for excision of recurrent lumbar disc and fusion of vertebrae. Preoperative investigations showed hemoglobin 9.9 Grams; hematocrit 38 per cent; WBC 5700; polys 57; lymphs 40 per cent; RBC 2.86 millions; calcium 9 mg.; albumin 4.2 gms.; bilirubin 0.4 mg.; alkaline phosphatase 45 mu/ml; LDH 125 mu/ml; and SGOT 45 mu/ml. Electrocardiogram showed no definite abnormality. Chest x-ray was normal. His blood type was "O" positive.

He had had blood transfusion a year ago during previous surgery. While undergoing the operation this time, he received 1000 cc. of whole blood of group "B" positive, by accident. Patient had a smooth course during surgery. Immediately Mannitol® 25 Grams, 25 per cent intravenously, was started. Renal dialysis team and shock team were summoned to the recovery room.

While the patient was recovering from anesthesia, blood was drawn for hemoglobin and hematocrit, electrolytes and plasma hemoglobin level. Central venous pressure (CVP) monitoring was started. Intra-arterial pressures were monitored continuously in the radial artery. Patient's respirations were assisted with 40 per cent oxygen by a mechanical ventilator. Arterial blood was sent for gas studies. Cardiac monitor was started on an oscilloscope.

While the patient was being observed, in about 15 minutes, he became severely cyanosed, lethargic, and had chills. His urine became port-wine colored. He was transferred to the intensive care unit. Blood pressure at this time was 60/0.

Immediately, intravenous sodium bicarbonate ethacrinic acid and 200 mg. Solu-cortef® was given. He was receiving 5 per cent D/saline. Regular Dextron® 10 per cent in water was added to his intravenous. Blood anaysis was done by heptoglobulius. Immediate urine analysis revealed free hemoglobin; microscopy of urine showed 20 to 25 RBC per high power field; pH of urine was acid. Because his CVP was 15 cm., fluid was slowed. Solu-cortef® and sodium bicarbonate were used judiciously. Because his hemoglobin was 7.8 Grams and hematocrit 24 per cent no blood was given. Instead, the intravenous of 5 per cent D/N saline was continued. Half an hour later, the patient started to respond. Urine was dark red but sufficient in quantity. Arterial gas studies revealed metabolic and respiratory acidosis. Breathing was assisted with mechanical respirator. He received, intravenously, sodium bicarbonate 200 mg. Solu-cortef® was given every three hours for the next 24 hours.

After half an hour of severe hypotension, patient was stable hemodynamically. His urine was red in color but sufficient in quantity (100-120 cc. per hour). Arterial PO2 was normal. His respirations were unassisted, by receiving nasal oxygen. Electrolytes were normal. Suddenly at 8 p.m., he became severely hypotensive and lethargic. Hemoglobin and hematocrit at this time revealed 6.8 Grams. Twenty per cent arterial gas studies revealed metabolic acidosis. (Figure 1). CVP was 16 cm. and B/P was 80/50. Gas studies previous to this episode had been compensated metabolic acidosis. About 200 cc. of 5 per cent D/N was given and saline was infused rapidly. There was no rise in arterial pressure but his CVP escalated. Another bolus of 40 mEq of sodium bicarbonate and 200 mg. Solu-cortef® was given intravenously with 40 mg. Edecrin.® PO2 at this time was 38. Arterial pressure started to fall more. Because his hypotension was not due to hypovolemia, it was inferred that it was due to low oxygen carrier. Hence, 250 cc. of doubly saline washed

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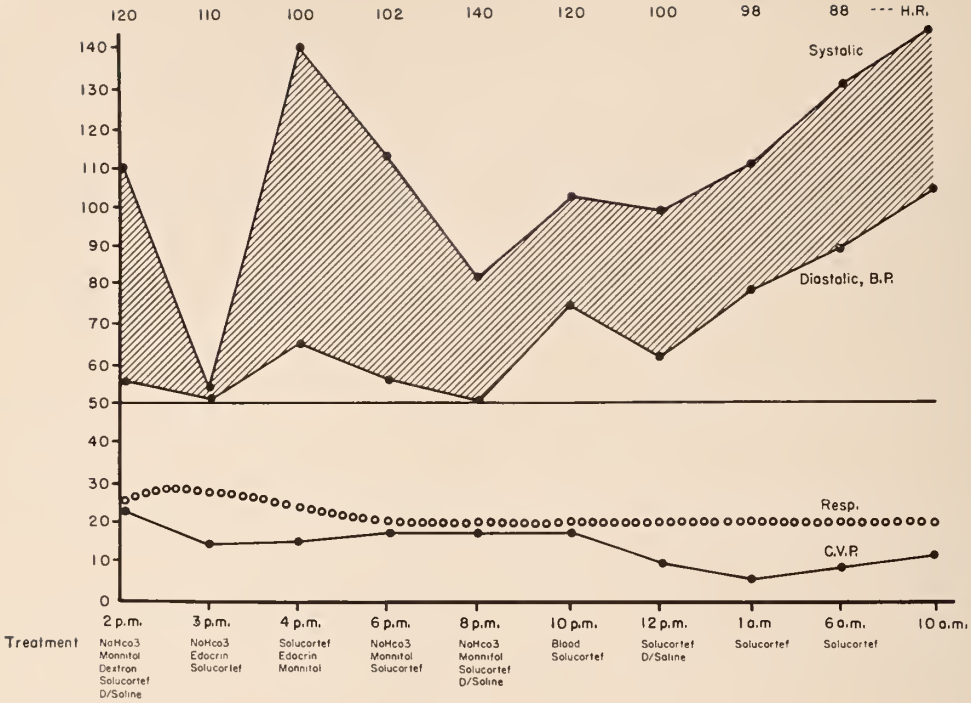


Figure 1

packed cells of "O" positive type after cross matching were given rapidly. His arterial pressure gradually rose to normal and remained so. His urine was clear in color in eight hours. He never had less than 100 cc. of urine in any hour except in the early part of this episode.

The next morning, the patient was completely coherent, eating a regular diet. There was no unusual bloody drainage from the drain that had been inserted in his back during surgery. BUN was 25, creatinine 1.2 mg., in his serum.

He was watched for kidney function with frequent monitoring of electrolytes, BUN, creatinine, hemoglobin and hematocrit. Two weeks after this accident his BUN was 45 mg. and creatinine was 4.5 mg. He had severe infection of his operation site. His kidney function reverted to normal. The wound healed. Anemia improved to normal with no specific treatment. Investigations for cause of anemia were unrewarding. Liver functions were never impaired. Post-operative course was complicated by pulmonary embolus. He was discharged home in good condition.

Patho-physiology

When there is mismatched blood transfusion, due to antigen antibody reaction, there is intravascular hemolysis. The free hemoglobin which is no longer capable of carrying oxygen is circulating in the vascular bed which has to be disposed of by the kidneys and the reticulo-endothelial system. Consequently, because of severe hypoxia, the vital organs fail to function. The heart fails to pump, kidneys fail to secrete, brain fails to react, lungs fail to exchange, and the liver fails to metabolize.

Because the heart is failing, circulation is slowed down. This adds insult to injury of hypoxia, i.e., there is sludging of cells in the capillaries, which leads to tissue hypoxia, culminating in shock. The free hemoglobin is poorly excreted in the glomeruli, because of failing circulation. Tissue hypoxia starts to precipitate in the renal tubules, leading to renal failure. The effect of tissue hypoxia which is first manifest by vital organs is revealed clearly later in each cell. If hypoxia persists, severe acidosis results, which upsets the enzymatic mechanism of the whole body, leading to so-called "irreversible" shock.

The other side effect of excessive hemolysis is seen in coagulation factors. Patients show excessive bleeding either immediately or later. This is attributed to low platelets and precipitation of proteins and to coagulation factor deficiencies.

Therapy

Treatment of this serious complication

TABLE

	1:15 P.M.	2:50 P.M.	9:00 P.M.	9:30 P.M.	4:00 P.M.
pH. (7.35-7.45)	7.23	7.37	7.32	7.37	7.37
PCO2 (36–44 mm Hg)	52.	35.5	36	39	40.5
Base Excess (±2.5 mEq/L)	(–5.2)	(–4.5)	(–7)	(–2)	(–1)
Standard Bicarb. (22–26 mEq/L)	20	20.5	18.5	22.5	24
Actual Bicarb. (22–26 mEq/L)	21.5	20	17.5	22.5	25
Buffer Base	38.5	40	35	42	43
Total CO2 (23–30 mEq/L)	23	21	18.5	23.6	26.2
PO2 (>95 mm Hg)	26	38	270	150	130
Na. mEq	130	126		126	
K mEq	3.3	4.7		5.2	
Cl mEq	100.	95.2		92.5	
Hgb. Gms	7.8	7.6	6.8	9	8.4
Hct. %	24	24	20	26	26

should be aimed at arresting the pathology and reversing the abnormal physiology. When there is excessive hemolysis, the cause of hemolysis should be stopped. That is, discontinue immediately the blood that is being transfused.

Circulatory hemodynamics should be restored and maintained. The function of the heart and circulation has to be assessed. To assess the cardiac function, CVP, arterial pressure monitoring, and oscilloscope for electrocardiogram are essential. CVP is inversely proportional to function of heart. Hence, fluid replacement should be influenced by CVP. The fluid for perfusion is electrolyte solution without potassium.

Time-honored custom of starting the blood to correct low hematocrit and hemoglobin should be discouraged.[2] The indication for blood transfusion in these cases is low arterial PO2. We deliberately withheld the blood in this case for about 12 hours, after the incident. When we could not raise the low arterial PO2, the saline-washed packed cells were given. The dual purpose is to minimize the circulatory overload and agglutination reactions. To minimize the effect of hypoxia, the effective assisted ventilation was maintained.

As a reflex phenomenon, physicians often start vasopressors, when they see the patient in shock. On the contrary, we gave Solu-cortef® in large doses. This is a vasodilator. CVP has to be maintained at "normal" level when administering cortisone. The use of electrolytes is influenced by the level of serum electrolytes.

Acidosis which is a sequel of hypoxia has to be corrected. We used sodium bicarbonate judiciously, guided frequently by arterial and venous gas studies. As you could see in the table, our patient was never in alkalosis, even though we used about 320 mEq of sodium bicarbonate in about 12 hours. Solu-cortef® also reverses the metabolic acidosis.

The sludging phenomenon of stagnant circulation and its sequela on tissues is minimized by intravenous Dextron®. The volume load of Dextron® is carefully monitored by CVP.

Elimination of free hemoglobin by the kidneys is assisted by maintaining the effective glomerular filtration and prevention of precipitation of proteins in the renal tubules. Here lies the value of adding both osmotic and solute diuretics. Mannitol was given to increase the glomerular filtration. Ethacrynic acid was used to prevent renal absorption of solutes. There is reluctance on the part of many clinicians to use solute diuretics. The

protective value of Edecrin® by inducing tubular catharsis is evident in this case by the absence of any renal tubular damage. Urine analysis did not reveal any casts at any time of his course. The other protective value of Edecrin® is to eliminate serum potassium, which is the cause of many lethal cardiac arrhythmias. Due to excessive hemolysis, there is massive release of potassium into the serum. Hence, Edecrin® is a valuable tool in the management. The frequent extra systoles that were observed in this case during the second episode of hypertension cleared within minutes, when intravenous sodium bicarbonate, Edecrin®, and Solu-cortef® were given, whether they were due to hyperkalemia or severe acidosis.

It has been reported[1] that severe bleeding is one of the common clinical findings, at the operative site, in mismatched blood transfusion. This phenomenon was not observed in our case. However, the monitoring of platelets, coagulation time, partial thromboplastic time, prothrombin time, serum calcium, during the shock period and one week later, showed no change. Whether excessive oozing that is seen in these cases is due to low platelets or due to severe acidosis is debatable. Although our patient was in severe acidosis, he did not manifest any bleeding. The so-called "fibrinolytic" reaction should be handled by the use of Epsilon-amino caproic acid.[3] That this complication was not seen in this case was probably due to use of Solu-cortef®.

Late sequelae of mismatched blood transfusion, like kidney failure, liver failure, and coagulation defects, should be anticipated and handled accordingly.

This case illustrates the effective team efforts of shock and renal dialysis unit. Combined efforts of personnel educated in this lethal complication and its sequela, helps to avoid the tragic end.

Summary

Here is a case of mismatched blood transfusion that occurred accidentally, during surgery. Signs and symptoms of such a complication are presented. Rationale of therapy and pathophysiology is discussed. The organized efforts of different teams in handling this complication are depicted.

Edecrin® is ethacrynic acid (Merck, Sharp & Dohme Company). Solu-cortef® is hydrocortisone sodium succinate (Upjohn Company).

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5230 Centre Avenue

Medical Rights of Teenagers

For 35¢ you can get, or tell your patients to get, a pamphlet called, *Rights of Teenagers as Patients*. The brochure points out the complexities of appraising the rights of teenagers seeking medical care without knowledge of their parents. Venereal disease is the obvious example of the problem. But questions also come up with teenagers seeking medical counseling on homosexuality, abortion, alcoholism, and drug abuse. Physicians are sometimes unwilling to accept teenagers as patients without parental approval for fear of malpractice litigation or charges of assault, or because of a feeling that persons under 21 should not be asked to undergo medical procedures without parental knowledge. The pamphlet is available from the Public Affairs Committee, 381 Park Avenue South, New York 10016.

Direct surgery of the coronary arteries has achieved an important role in the care of the patient with coronary heart disease.

Surgical Treatment of Coronary Heart Disease*

Victor Parsonnet, M.D., *et al.*/Newark

Considering the number of operations devised for coronary heart disease in the past 70 years, it is not surprising that any new operation is greeted with skepticism. The latest procedure to achieve popularity is direct surgery of the coronary arteries with a vein bypass from the aorta to the involved artery beyond the obstruction. This follows principles of vascular surgery developed over the past decade. We had learned that although atherosclerosis tends to be a diffuse and "malignant" process, it is also segmental, and that, beyond an obstructing or stenotic plaque, the artery may be soft and relatively free of atheromatosis. It had also been observed that tissue supplied by such arteries is still viable and capable of returning to normal function once arterial circulation has been restored.

Although direct surgery of the coronary arteries was first suggested by Murray in 1952, it was not until 1968 that Favalaro and others demonstrated the efficacy of bypass grafts. Experience over the past four years shows that with proper selection, operative mortality is in the vicinity of 5 per cent, and postoperative data suggest that the bypass vein graft in most cases will remain patent.

Cardiac surgeons throughout the country have begun to perform this operation in great numbers, probably in the vicinity of 23,000 this year alone, exclusive of the still useful but controversial internal mammary artery implant (Vineberg operation).

Indication for Surgery

Firm criteria for selection of patients have not yet been agreed upon, obviously because full knowledge of long term results is not available. We have selected the following criteria for surgery:

1. Impending infarction syndrome (crescendo angina, angina decubitus, coronary insufficiency, pre-infarction angina, intermediate anginal syndrome). The best candidate in this group is the patient with "typical" anginal pain that comes on with minimal exertion or at rest, associated with an ischemic electrocardiographic change but normal enzymes.

2. Severe angina (especially if refractory to medical management) in a patient with reasonably good myocardial function.

3. Ventricular aneurysms associated with angina, or with its attendant complications of congestive failure due to paradoxical pulsation of the aneurysm, peripheral embolization, and refractory ventricular arrhythmias.

4. Concomitant association of coronary heart disease and valvular heart disease.

5. Complications of coronary heart disease, such as papillary muscle dysfunction or rupture, cardiogenic shock, refractory arrhythmias, and recurrent peripheral embolization.

Patients are rejected for surgery when the arteriogram shows diffuse small vessel disease, when congestive failure is the predominant symptom, when there is diffuse myocardial disease, and when the general medical status

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carries with it an exceedingly high surgical risk. Totally asymptomatic good risk patients with a history of previous myocardial infarction are not as yet selected for surgery, although if present operative results continue to be impressive, such individuals may eventually be operated upon in order to prevent subsequent infarcts.

Surgical Technic

Patients are selected for surgery according to these criteria, and always on the basis of the findings on the coronary arteriogram. Coronary arteriograms usually are performed electively by the Judkins[1] method. This is often combined with studies of cardiodynamic function. When the situation dictates, the arteriogram will be performed as an emergency procedure with the intention of taking the patient directly to the operating room. In such an instance, partial cardiopulmonary bypass through the femoral artery and vein has been instituted in the catheterization laboratory until the operating room is prepared for surgery. Otherwise the patient is scheduled for surgery within a period of two to six weeks depending upon the urgency of the situation and the operative case load.

The operation is performed under general anesthesia. Morphine sulfate, 8 to 10 mg., and scopalamine, 0.3 to 0.4 mg., are administered one hour before surgery, and isosorbide dinitrate, 5 mg., sublingually on arrival in the operating room. Diazepam, 5 to 15 mg., is given transvenously while monitoring devices are attached. This is followed by 100 per cent oxygen by mask and an intravenous infusion of 2 mg/kg of morphine sulfate dissolved in 250 cc. of 5 per cent dextrose in water. After loss of the eyelid reflex, succinylcholine, 60 to 80 mg., intravenously is used to facilitate endotracheal intubation. The larynx and trachea are anesthetized topically with 4 per cent lidocaine. A nasogastric tube and esophageal temperature probe are passed immediately after endotracheal intubation; d-Tubocurarine is administered in increments of 6 to 9 mg. to produce full paralysis. Anesthesia is maintained with nitrous oxide 3 L/min. and oxygen L/min. Nitroglycerin, 0.4 mg., is injected intramuscularly at half hour intervals. The lungs are automatically ventilated with a tidal volume of 10 to 12 ml/kg of body weight at a rate of 12 to 14 times per minute. A cascade humidifier is incorporated into a circle system to humidfiy the inspired gases. A positive pressure of 10 cm. of water is maintained during total bypass. At the time of bypass Solu-Medrol® 30 mg/kg intravenously is injected, and diazepam, 5 to 10 g., may be given intravenously *via* the heart lung machine.

Throughout the operation the following functions are monitored: intra-arterial blood pressure, electrocardiogram, electroencephalogram, central venous pressure, blood gases and electrolytes, urinary output, and body temperature.

All operations are performed under cardiopulmonary bypass. In most cases the left femoral artery is used for the arterial perfusion line, and the venous line is a single cannula inserted into the right atrium and vena cava through the right atrial appendage. Occasionally the ascending aorta is used for the arterial line if there are inadequate femoral pulses or if there is a rise in pressure in the arterial line during the first few moments of the perfusion that might indicate retrograde arterial dissection. Simultaneous incisions are made in the chest, left inguinal area, and left leg. Through the latter incisions the saphenous vein is removed, usually from ankle to groin, the tributaries ligated, and the proximal and distal ends of the vein tagged so that subsequently the valves within the bypass will lie in the right direction. The leg wounds are closed by one surgical team while another team completes the thoracic portion of the operation. The heart is exposed through a median sternotomy with an inverted T-shaped incision made in the pericardium. The aorta and pulmonary arteries are looped with tapes, and after institution of bypass a plastic sump cannula is inserted in the apex of the left ventricle. Bypass is performed with heparin sodium intravenous, 3 mm/kg., using the Travenol-Bently oxy-

genator under normothermic conditions. Total cardiopulmonary bypass is obtained by tightening the tourniquet about the pulmonary artery.

The selection of arteries for bypass is made jointly by the surgical team at the time of the original study of the arteriogram, and again on the morning of surgery. The selected veins are usually connected to the ascending aorta before institution of cardiopulmonary bypass, especially if more than two shunts are required, in order to shorten the pump time.

When only one or two shunts are required, the patient will be placed on cardiopulmonary bypass and the lower ends of the vein anastomosed to the coronary arteries first. The left anterior descending and circumflex anastomoses are always done with the heart immobilized by ischemic cardiac arrest, without whole body or cardiac cooling. The anastomoses are performed under optic magnification and using mircrosurgical technics, with 6-0 or 7-0 Tycron® or Prolene® sutures. The aortic anastomoses are done over a partial occluding clamp with 5-0 Tycron® sutures, and without excision of an aortic window. A silver clip is placed near the ostium to facilitate subsequent angiographic identification.

At the conclusion of the operation, central venous and systemic arterial pressures are monitored. In poor risk cases the left atrial pressure is also measured by placing a catheter in the left atrium through the right superior pulmonary vein. Pacemaker wires are inserted in the anterior surface of the right ventricle, and occasionally in the right atrium as well to provide for postoperative control of the heart rate that occasionally may be required. The chest is closed with trans-sternal wires. A large catheter is placed in the anterior mediastinum, and a small catheter and rubber tissue drain are placed behind the heart and brought out through the lower angle of the wound. If the pleural cavity was inadvertently opened, it is also drained with a standard thoracotomy tube.

From the operating room the patient is sent to the coronary care unit where specially trained nurses are in continual attendance for a period of 48 to 72 hours. The endotracheal tube is kept in place until the following morning, and respirations are controlled with an MA-1 volume cycled respirator. A mobile shock cart is used on most patients for continuous monitoring of central venous pressure, arterial pressure, and electrocardiogram, and calculation of such derived data as systemic vascular resistance, cardiac output, cardiac index, left ventricular work, and tension time index. Routine postoperative medications include only antibiotics, but on frequent occasions it is necessary to use vasopressor drugs, isoproterenol, glucocorticoids, digitalis, and anti-arrhythmic agents.

Most patients are ready for discharge from the hospital within two to three weeks. Before discharge coronary arteriography, angiograms of the bypass grafts, and dynamic studies are repeated to look for any technical defects in the grafts that might require surgical correction. On discharge from the hospital, patients are usually instructed to take isosorbide dinitrate, vitamins and iron, mild analgesics, and on occasion anticoagulants, especially when gas endarterectomy and ventricular aneurysmectomy had been performed.

Gas endarterectomy is done in most instances on the distal right coronary artery, and occasionally on the left anterior descending coronary artery, using technics well described by others.[2, 3] Injection of carbon dioxide between the adventitia and media helps to loosen the atheromatous core from the artery. In many cases, however, it was possible to do direct manual endarterectomy with equal success (a collection of endarterectomized material is illustrated in Figure 1.).

Results

From September 1969 through May 1972, 112 operations had been done for coronary heart disease, including eleven internal mammary

implants (the Vineberg operation). In one patient an internal mammary implant and vein bypass were combined, but in all the rest a variety of types of bypasses have been performed. There were 96 men and 17 women, whose average ages were 52 and 55 years respectively. The youngest patient was a woman, age 29, and the oldest a man, age 67. (Table I.) In the early days of our experi-

Table I

	Number	*Average*	*Age Range*
Male	95	51.8	35-67
Female	17	55.1	29-64

Age and sex distribution of patients undergoing coronary surgery.

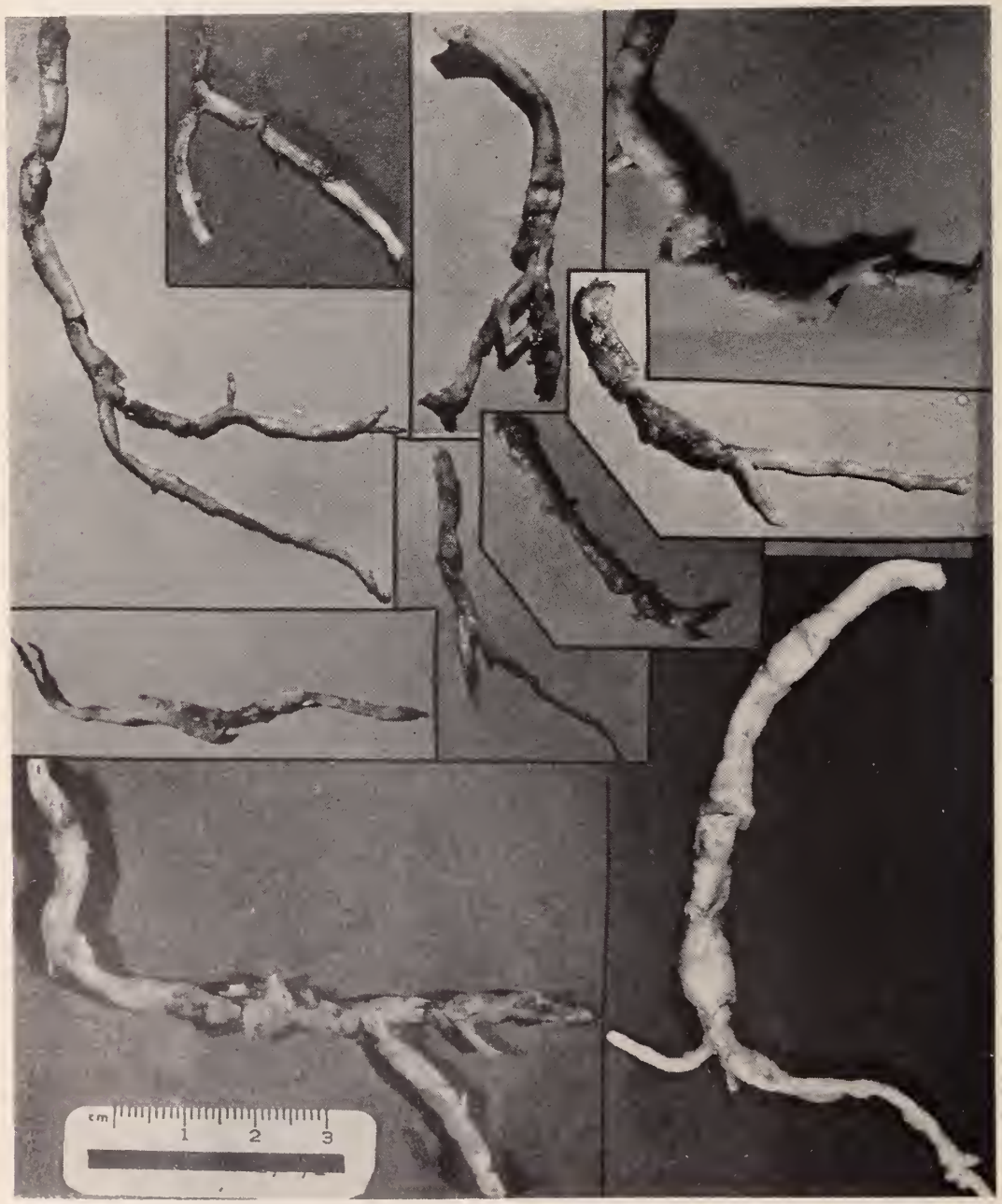


Figure 1—Typical examples of atheromatous material removed by direct manual and gas endarterectomy from the right and left anterior descending (center two specimens) coronary arteries. Note in some cases an entire cast of the vessel appears to have been removed.

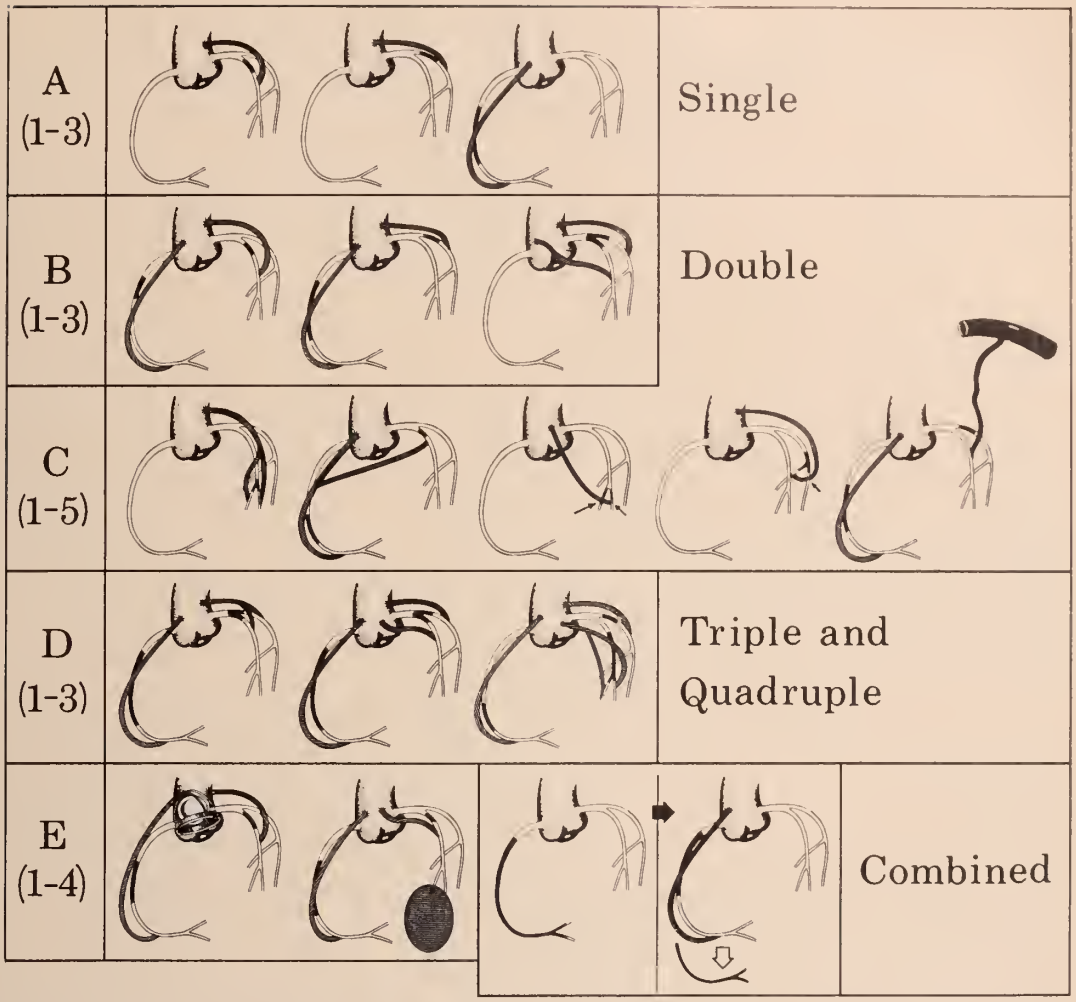


Figure 2—Diagrams of various operations performed. Line A shows the single bypasses to the left anterior descending (A-1), circumflex (A-2), and right (A-3) coronary arteries respectively. Lines B and C show double bypasses, in B each vein with a separate orifice in the aorta and in C with single orifices and Y-shaped anastomoses or double outlets in the distal arteries. Line D shows varions combinations of triple and quadruple bypasses. Line E illustrates bypass procedures combined with valve replacement (E-1), aneurysm resection (E-2), and gas endarterectomy (E-3,4).

ence only the best risk patients were selected for surgery, and no more than one bypass was attempted. Even so, the operative mortality was then relatively high, perhaps because every involved artery was not attended to. Mortality has been reduced progressively over the years, despite the increasing number of bypasses, increasing pump time, and increasing risk of patients selected for surgery. In the total series 44 per cent of the bypasses were single, but in the past six months only 20 per cent have been single, indicative of our more aggressive attitudes toward the problem.

The patterns of bypasses performed are illustrated in Figure 2. Triple bypasses can be done with three separate orifices in the aorta, or with a combination of Y grafts. Quadruple bypasses, done in two patients, were indicated for diffuse disease, when one of the branches of the circumflex and left anterior descending coronary artery was unusually large. Although we have not performed a quintuple bypass as yet, it will not be surprising to see a suitable surgical candidate. At least four such operations have been reported by Johnson.[4]

Naturally, more complex operations that also

Table II

	Artery	*Number Operations*	*Operative Deaths*
Single	R	19	2
	L	16	0 2/38 (5.3%)
	C	3	0
Double	RL	25	2
	RC	4	1
	LC	3	1 4/36 (11%)
	LD	3	0
	CC	1	0
Triple	RLC	9	1
	RLD	1	1 2/10 (20%)
Quadruple	RLCD	2	0 0/2 (0%)
Totals		86*	8 (9.3%)

* Not including multiple procedures (aneurysms, valves, etc.)

Deaths as related to number and site of bypass. Note that deaths are more frequent with double and triple bypasses, probably related more to the severity of the disease than to the complexity of the operation. There is no obvious relationship of deaths to a particular artery bypassed. (R-right, L-left anterior descending, C-circumflex, D-diagonal branch of left anterior descending).

Table III

Number of Patients	101
Operative Deaths	13
*Late Deaths	4

*More than 60 days.

Summary of all direct operations on the coronary arteries (excluding 12 internal mammary implants).

require a valve replacement or resection of a ventricular aneurysm are attended with a much higher mortality rate. Even in these desperately ill patients (listed in Table IV) 67 per cent of the operations were successful.

Table IV

Other Procedure	*Number*	*Deaths*
Ventricular Aneurysm	8	1 (12.5%)
Valve Replacement	4	2
Internal Mammary Implant	2	1
Acute Myocardial Infarct	1	1
Totals	15	5 (33%)

Results of more complex operations combining bypass with another major problem.

Because of the reported incidence of early and late saphenous vein bypass closure, Green and others have recommended the use of the internal mammary artery for direct anastomoses to the left anterior descending coronary artery.[5] This procedure was done successfully in five patients, in one combined with a vein bypass.

Graft patency has been studied in 46 patients before discharge from the hospital, for a total of 82 separate grafts (Table V). Five per cent

Table V

	Number of Patients Studied	*Number of Grafts*	*Number of Patients w/Closed Grafts*	*Number of Grafts Closed*
Early	46	82	4 (8.5%)	4 (5%)
Late*	5	8	3	3
Totals	51	90	7** (14%)	7 (8%)

*All patients symptomatic
**Only 1 patient without any patent bypass

Evaluation of early and late graft patency (see text).

(4 grafts) of these had closed and, in three of these, closure had been anticipated because of absent run-off in the distal coronary tree noted at the operating table. The frequency of late graft closures was difficult to evaluate, because patients were not studied routinely; only those who had recurrent or new symptoms were studied. One patient with but a single graft suffered a closure of this bypass and is left without a functioning graft. All other patients with closure of a single graft had at least one remaining patent bypass functioning at the time of repeat arteriogram

Late follow-up of the 99 surviving patients revealed that five have died (Table VI). In one of these, our second patient, autopsy disclosed a recent thrombosis of an unbypassed left anterior descending coronary artery (if the patient were selected for surgery today, two bypasses would be performed). Two other deaths were cardiac (see Table VI), and two patients died of other causes. Of the 94 remaining patients, 45 were markedly improved in that they returned to normal activity and were free of angina, 21 were classified as better (for a total of 87 per cent), and six were unchanged or worse. In five of the latter group graft closure has been demonstrated.

Table VI

Type Operation	*Total Number*	*Asymptomatic*	*Improved*	*Same*	*Worse*	*Late Deaths*
Single	27	15	6	3*	0	3**
		(78%)				
Double	39	22	13***	2	1****	1
		(90%)				
Triple	8	6	2	0	0	0
		(100%)				
Quadruple	1	1	0	0	0	0
Single + IMI	1	1				
	76	45	21	5	1	4
		(87%)				
IMI Only	10	6	1	2	0	1
		(70%)				
Op Deaths	13					
Too Early	8					
No Follow-Up	5					
Total	112					5%

Late Deaths

Cardiac—3 (AMI, Sudden, CHF)

Pulmonary Insufficiency—1

CVA—1

*Only graft shut in 2
**One should have been double
***Graft shut in 1
****Graft closed, IMI

Clinical follow-up of coronary bypass surgery (see text).

Discussion

Although it is too early to claim dramatic long-term results, it is apparent that most patients have symptomatic improvement. Moreover, there have been only two myocardial infarctions in the entire series covering an average period of 14 months. By contrast there were three fresh infarcts in patients *awaiting* surgery, a preliminary period that averages three weeks. The operative death rate is within acceptable limits in patients with bypass surgery alone (approximately nine per cent) and an analysis of the last 50 bypass operations shows further improvement with a mortality under 5 per cent.

Certain patients with resection of ventricular aneurysms have had clear-cut clinical improvement, but, in those with impaired contractility and areas of dyskinesia, information is, as yet, inadequate. Preliminary evaluation on catheterization data of left ventricular function does reveal, however, that many patients have had striking improvement in left ventricular function as evidenced by decreased end-diastolic volume, lower end-diastolic pressure, and improved contractility. This study confirms the recent report of Chatterjee[6] who has studied a limited number of such patients.

The most dramatic improvement has been in patients with the so-called impending infarction syndrome. Five such patients were operated on, with complete relief of symptoms in four. One died during the operation because there was a massive septal infarct approximately three days old. Another intra-operative death in an elective operation occurred because of massive recent infarction. Neither of these patients could be removed from cardiopulmonary bypass. This observation confirms that recent infarction, more than a few hours old, is attended by an almost insur-

mountable mortality rate. As a result, no patients are now operated on without a last minute electrocardiogram and serum enzyme determination. If any abnormality is noted, surgery is postponed.

It is also clear that as many as possible of the major stenotic or occluded arteries should be corrected. Significant occlusion means 50 per cent stenosis or more, as judged by at least three of the physicians interpreting the angiogram. In each patient, a judgment was made with regard to the most critically needed bypass. As a general rule, this bypass was performed first so that in the event of an intraoperative emergency, such as dissection of the artery connected to the arterial line, the operation could be terminated immediately. After completion of the critical bypass, the other lesions were corrected, and as many bypasses as necessary were performed. It is our feeling that an extra few minutes on the pump is much less dangerous than leaving behind an uncorrected significant stenotic lesion.

Complete angiographic occlusion of the distal right or the distal left anterior descending coronary artery did not preclude bypass surgery. In almost all of these cases (with the exception of one left anterior descending coronary artery) satisfactory endarterectomy was performed with adequate restoration of circulation through the distal vessels. (Figure 1.) Because the endarterectomized vessel has a roughened surface, these patients and those with aneurysmectomies have been kept on long-term anticoagulation therapy. Otherwise we believe that anticoagulation is not necessary.

Summary and Conclusions

Surgery was performed for 112 patients with coronary heart disease. Aorto-coronary vein bypass surgery was done in 101 of them with an operative mortality of under 5 per cent in the last 50 patients having bypass surgery alone. Ninety-five per cent of the veins studied before discharge from the hospital were patent. Significant clinical improvement was obtained in 87 per cent of patients, and in an average follow-up period of 14 months there have been only two late myocardial infarcts. Direct surgery on the coronary arteries has now achieved an important place in the therapy of coronary heart disease.

Acknowledgement—Cardiac surgery is performed by a team of people whose devoted and tireless association we would like to acknowledge. They are Gerald Weiss, Ph.D., and Samuel Einhorn, M. D., who supervise the perfusion procedures; Georgia Reed, R. N., Julia Gaines, R. N., and Robert Haiken, our pump technicians; our operating room nurses, Audrey Sias, Lavelle Johnson, Sally DeLiso, and Diane Washburn; the nurses of the Coronary Care Unit; our administrative secretary, Rosalind Tantleff; and the many others of the unseen crew in the pulmonary shock laboratories and blood bank; and the surgical and medical house officers.

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Our own apathy may be a factor in converting our air to sewers.

Air Pollution

Are We Winning or Losing the Battle?

Frank L. Rosen, M.D./Maplewood*

The evidence that air pollution contributes to the development of chronic respiratory diseases is now accepted. When I reported[1] a 1953 incident of temperature inversion air pollution in New Jersey with threefold increase in bronchial asthma, my observations were treated with raised eyebrows. In the past two decades, there have been thousands of papers in world-wide medical literature indicting air pollution as a cause of bronchial asthma as well as other illnesses.

Have we made much progress in clearing our dirty air in the past twenty years? Not much. We talk more about it but I have been appalled by the comparatively few people, including physicians, who take a real interest. So many say "Why don't they do something about it?"

Auto Exhaust

The major cause of dirty air in our cities is the auto exhaust. Note the effects on the following patients, typical of hundreds I have seen.

A 40-year old woman, a non-smoker, moved to a new home within a block of a heavily traveled highway. Her asthmatic attacks increased in frequency and severity and were relieved only when she moved to a new area.

A 50-year old man, a non-smoker, gets asthma attacks chiefly on his way to and from work, while he is in heavy traffic surrounded by noxious fumes.

Automobile companies and the oil industry are not moving fast enough to make car exhausts innocuous. Some experts think the gasoline engine can never be made harmless and must be replaced by electric, steam, natural gas, fuel cell, or atom-powered vehicles. Many auto engineers say the electric car is the most promising. I have driven several of them and they ride well. What prevents them from going into mass production? The battery. The electric motor is much simpler than the gasoline engine.

One way of speeding up development of the battery-powered vehicle would be by giving it tax benefits. Federal, state, and city taxes, as well as registration fees, could be cut in half. Large fleet owners of buses, trucks, taxis, and individuals thus would have a great incentive to buy these cars, so prospective manufacturers would be stimulated. The loss of revenue to government would be more than made up by the lessening of the damage from air pollution to property and crops, as well as the incalculable benefits of better health for all of us.

Do you know that many fleet owners and individuals disconnect the pollution control valve on our present cars? This is done to save money through better mileage.

There should be a special tax on motor vehicles and gasoline to finance research.

Industrial Air Pollution

I have many patients who get asthma attacks on days when the wind blows a pollutant

* Doctor Rosen is Chairman, Air Pollution Committee of the Essex County Medical Society, and a member of Committee on Environmental Health of The Medical Society of New Jersey

from a nearby factory. I even have a patient who gets asthma only on days when a neighborhood chemical plant makes penicillin! A Newark Airport meteorologist told me that many people who work there have nasal and bronchial symptoms when pollutants are blown in from local industrial areas by the wind, as well as by the exhaust of jet planes.

We must stop the pollution of our cities by industry. We have the know-how to correct this, but the great expense has stymied real progress. For example, it cost six million dollars to make one New Jersey utility plant pollution-free. Multiply this by thousands of power sources throughout the country and you get an idea of the cost. The major return to the stockholders and the rest of us is better health. What's this worth in dollars? It is ironic that Denver, once chosen for tuberculosis and asthma hospitals, because of its pure air, is now on the list of the worst polluted cities in the United States.

Hospital Air Pollution

Few of us think of hospitals as a serious source of air pollution. A public health study of the New York City metropolitan area some three years ago indicted most hospitals in New York and New Jersey as polluters of the air. Our older hospital incinerators are overloaded, since they were not planned to burn disposable material.

Insecticide Pollution

Recently, I saw a 9-year old boy who came home with asthma after attending day camp. At first I thought it was due to exertion or exposure to pollens and molds in the fields. I later found that these factors were not the cause, but that he had been exposed to spray in the area. Many day camps spray the grounds daily with insecticide before camp starts. Sufficient time may not be allowed for complete dispersion of the vapor.

Leaf-Burning Pollution

I have many patients whose asthma attacks are caused by exposure to smoke from leaf burning. In the fall, in the suburbs, leaf-burning becomes not only an outdoor sport or a pagan rite, but a deadly menace for many patients with allergic respiratory disease. A few years ago at least one and possibly two deaths were reported in the local papers of asthmatic children who died after inhaling the smoke of burning leaves. One nearby town could not get an ordinance passed forbidding leaf-burning until a councilman's wife had several asthma attacks from a neighbor burning leaves. A recently revised New Jersey Air Pollution Control Code now bans all burning of leaves in our State.

Pollen and Mold Pollution

Pollens and molds are a major cause of air pollution. You may wonder why, on certain days, with a low pollen count, many of our patients are having trouble. So you say, "Well, maybe there is something wrong with the pollen count. The pollen count where the patient lives is not the pollen count on top of the municipal building or hospital in town," and you usually explain it that way. But if you will check pollution readings on days when many patients come in with trouble, I think you will find some correlation. Very little of this work has been done. Proper ragweed control must be considered part of the air pollution problem. It will not only lessen hay fever, but prevent many serious complications like bronchial asthma, which ultimately may develop in many hay fever patients.

What Can the Physician Do?

Think about air pollution as a cause of symptoms in many patients. I am convinced, after practicing allergy for thirty-five years, that many asthmatics are wrongly labeled psychosomatic, when their symptoms are due to polluted air. You must look for it in your own practice.

About eight years ago, I gave a paper on air pollution at the annual meeting of the American Medical Association. After the talk, two physicians came up to me. One said, "I practice in Buffalo, and now I know why I saw a great increase in patients with asthma and

other symptoms in the part of town where a new steel mill opened." I asked, "Did you report it to the Health Department or write it up for a medical journal?" "No," he replied, "I didn't think of the connection until now!"

The other doctor, from a small town in Maine, noted a similar increase of respiratory illnesses in the neighborhood of a new paper mill. He referred it to the public health authorities and some action was taken. "Why didn't you write it up for a medical journal?" I asked, "even a letter to the editor?" His reply was, "I'm just a G.P. I don't know how and I haven't the time to write."

We must inform our legislators when we see the harmful effects on health from local air pollution. We must report incidents in the medical literature so that other physicians can be aware of the problem.

Sex and Air Pollution

Several years ago, I spoke to the East Orange (NJ) Chamber of Commerce on air pollution. I said that some of the animals exposed to exhaust fumes in research projects developed illnesses and many lost their desire to mate. I said if someone could show that air pollution diminished the sex drive in humans, then we would really get some action. A reporter wrote up my talk, but the copy editor headlined it—*"Doctor Says Air Pollution May Affect Your Sex Life."* Public interest in this was fantastic. I had phone calls and letters from the media all over the world asking for more information on air pollution and sex life.

Summary and Conclusions

Air pollution is a major peril to all of us. Comparatively few people, including physicians, have a real interest in the problem. We have not made much progress in clearing the air in the past twenty years.

It is urgent that we have a strong national law on air pollution. We must cross party lines, since the lethal air can chronically poison a Democrat in California as well as a Republican in New York. Remember: The motor vehicle which causes 60 to 80 per cent of the pollution problem in cities constantly crosses state lines, polluting each state impartially. Industry, polluting the air, will move from a state which has rigid enforcement to a state where toleration exists.

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2130 Millburn Avenue

Guide To Voluntary Mental Health Agencies

A guide to nationally established voluntary aid agencies in the mental health field has been issued by the National Institute of Mental Health. This will help the citizen seeking help or information about the delivery of community mental health services. The pamphlet is entitled, "The Voluntary Agency and Community Mental Health Services" (Public Health Service Publication No. 2090). It lists the major voluntary agencies which provide service related to mental health. Special attention is paid to services for alcoholics, mental patients, children, and unwed mothers.

Single copies may be obtained gratis by writing to Public Inquiries, Office of Communication, 5454 Wisconsin Avenue, Chevy Chase, Maryland 20011. Multiple copies may be purchased at 20 cents each from the Government Printing Office, Washington, D.C. 20402.

Cytotoxic therapy offers some hope of regressing the highly malignant uterine carcinosarcoma.

Regression of Metastatic Uterine Carcinosarcoma

Following Cyclophosphamide Chemotherapy

Earl Greenwald, M.D., Caterina A. Gregori, M.D., and James L. Breen, M.D./Livingston*

Uterine sarcoma represents one to two per cent of female genital malignancies. It is a highly malignant uterine neoplasm which metastasizes rapidly by the hematogenous route. Dissemination of the tumor usually occurs prior to any demonstrable clinical evidence of the primary tumor. In the absence of the objective evidence of widespread disease, the established therapy has been a total abdominal hysterectomy and bilateral salpingo-oophorectomy. Lymphadenectomies do not appear to contribute to the survival rate. Ancillary treatment in the form of radiotherapy has been recommended, but the value of this adjunctive therapy has not yet been proved.[1] Chemotherapy has been utilized in the treatment of metastatic sarcomas of various origins.[2, 3, 4]

Hoovis[2] reports a patient with a uterine stromal sarcoma, who was treated with a total abdominal hysterectomy and bilateral salpingo-oophorectomy. At the time of surgery, an area of metastatic disease was excised from the omentum. Massive ascites was subsequently treated with intravenous cyclophosphamide with complete resolution of the peritoneal fluid, and a total regression of all peritoneal implants. This was confirmed at time of laparotomy for acute appendicitis seven months after the administration of chemotherapy. The patient was alive and without evidence of recurrence one year after the institution of chemotherapy.

Beckerman[3] reported the treatment of a patient with an osteogenic sarcoma of the right months after the appearance of the pulmonleg with disarticulation of the leg at the hip and a right inguinal lymphadenectomy. Eight months postoperatively, pulmonary metastases were treated with a combination of Chlorambucil®, Methotrexate®, and actinomycin D with marked, although not total, regression of the lung lesions. Regression persisted for six ary metatases. Dick and Phillips[4] reviewed their experience with the use of cyclophosphamide in the treatment of a variety of sarcomas. One patient with metastatic Ewing's sarcoma was treated with good subjective and "slight" objective response. This patient died 44 weeks after institution of therapy. Two patients with fibrosarcoma of the extremities with pulmonary metastases, one leiomyosarcoma of the stomach, and one leiomyosarcoma of the ovary showed no response to cyclophosphamide therapy. One patient with undifferentiated sarcoma of the forearm showed marked regression of the primary lesion, but no objective changes in the pulmonary or hepatic metastatic lesions.

These findings, and the unfavorable reports of other investigators attempting to treat metastatic sarcoma with chemotherapeutic agents, have lead to the conclusion that metastases to the lung and liver are resistant to systemic therapy, and that such patients should not be subjected to prolonged treat-

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ment with alkylating agents. [1] It is our purpose to present a case which revealed a marked regression of metastatic uterine carcinosarcoma following cyclophosphamide chemotherapy.

The patient was a 66-year-old nulligravida who was first admitted in February 1970, with complaints of lower abdominal and lumbosacral pain, weight loss, and urinary frequency. Exploratory laparotomy at another hospital revealed a large, non-resectable uterine mass. Histologic diagnosis was uterine carcinosarcoma. Postoperatively 6,000 rads of external radiotherapy was delivered to the pelvis using Cobalt 60, and the patient was referred for further evaluation and treatment.

Examination on admission was essentially unremarkable except for uterine enlargement, the uterus being eight to ten weeks' size. Abnormal laboratory data included a serum copper of 294 gamma per cent, albumin of 2.8 gm per cent, diminished uptake on liver scan, and extensive bilateral pulmonary metastases (Figure I) which were not present on previous x-ray examinations. Cyclophosphamide 100 mg orally every four hours for ten doses was administered, and the patient was discharged on 50 mg of cyclophosphamide three times daily as a maintenance dose.

Serial chest x-rays revealed rapid and complete resolution of all pulmonary metastases by June 10, 1970 (Figure II). In view of a total absence of clinical evidence of metastatic disease, the patient was readmitted, and total abdominal hysterectomy and bilateral salpingo-oophorectomy were done on June 12, 1970.

No evidence of intraperitoneal metastases was present on thorough examination. The uterus, tubes, and ovaries appeared normal, and pathologic examination of the surgical specimen revealed residual carcinosarcoma involving the uterus only. Cyclophosphamide therapy was again instituted, 50 mg three times daily, starting on the eighth post-operative day, and the patient was discharged on this maintenance regimen.

The patient was free of pain on discharge, and she returned to work.

A later chest x-ray revealed no metastatic lesions until June, 1971, when the patient experienced the gradual onset of pleuritic right chest pain and a nonproductive cough. Examination was unremarkable on admission except for decreased breath sounds and dullness to percussion over the right lower lobe. Chest x-ray revealed a large metastatic lesion in the right lower lobe. The hematocrit was 28 per cent, hemoglobin 9.6 gm per cent; lactic dehydrogenase 275 milli-international units per ml; liver scan, skeletal survey, and intravenous pyelogram were negative. Two units of packed cells were administered, raising the hematocrit to 36 per cent. Fluorouracil, 500 mg, was administered intravenously daily for three days with no clinical improvement. The right pulmonary metastasis enlarged and cavitated, with a new metastatic lesion appearing on the left. Palliative Cobalt 60 radiotherapy was administered to the right hemithorax with considerable improvement in the severity of the pleuritic chest pain, but no decrease in the size of the lesion.

Weekly intravenous theo-Tepa therapy was instituted, 30 mg each injection, and the patient was discharged on August 19, 1971. Her condition gradually grew worse, and the patient entered for her final admission on October 4, 1971, with pleuritic right chest pain and left hemiparesis. The weakness progressed to paralysis, a left internal strabismus developed and the patient gradually became comatose. Brain scan re-



Figure I—P-A of chest (5-3-70) revealing diffuse pulmonary metastases

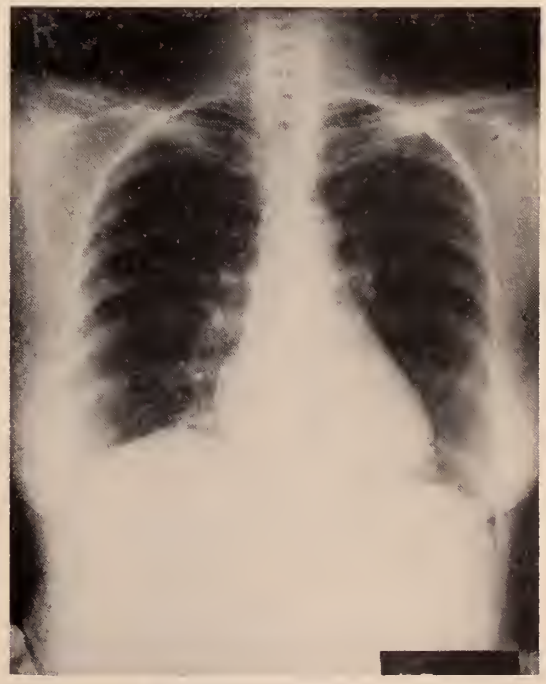


Figure II—P-A of chest (6-10-70) revealing a resolution of the pulmonary lesions

vealed multiple areas of abnormal uptake, particularly on the right, consistent with suspected cerebral metastases. She died on November 5, 1971.

Summary

A case is presented which demonstrates the regression of a metastatic uterine carcinosarcoma under cyclophosphamide therapy. Survival from time of diagnosis of metastatic pulmonary disease was nineteen months. The patient lived at home most of this time, and was active and comfortable until one month prior to her demise.

Chemotherapy of patients with metastatic sarcomas may occasionally increase the duration of survival. This favorable response of metastatic sarcoma under cytotoxic therapy warrants a further trial of this therapeutic modality with uterine sarcomas.

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Old Short Hills Road

Effects Upon Infants Of Early Separation from Mothers

What are the specific biologic and behavioral impacts of separating a newborn from his mother soon after he has established a close relationship with her?

Using animal studies as a model for human phenomena, Dr. Myron A. Hofer, of New York City's Montefiore Hospital, is exploring these issues under a grant from the National Institute of Mental Health. By understanding how removal from the mother may affect such factors as heart rate, sleep patterns, and chemical functions in the body, the psychiatrist hopes to learn more about the role the mother plays in the development of these systems.

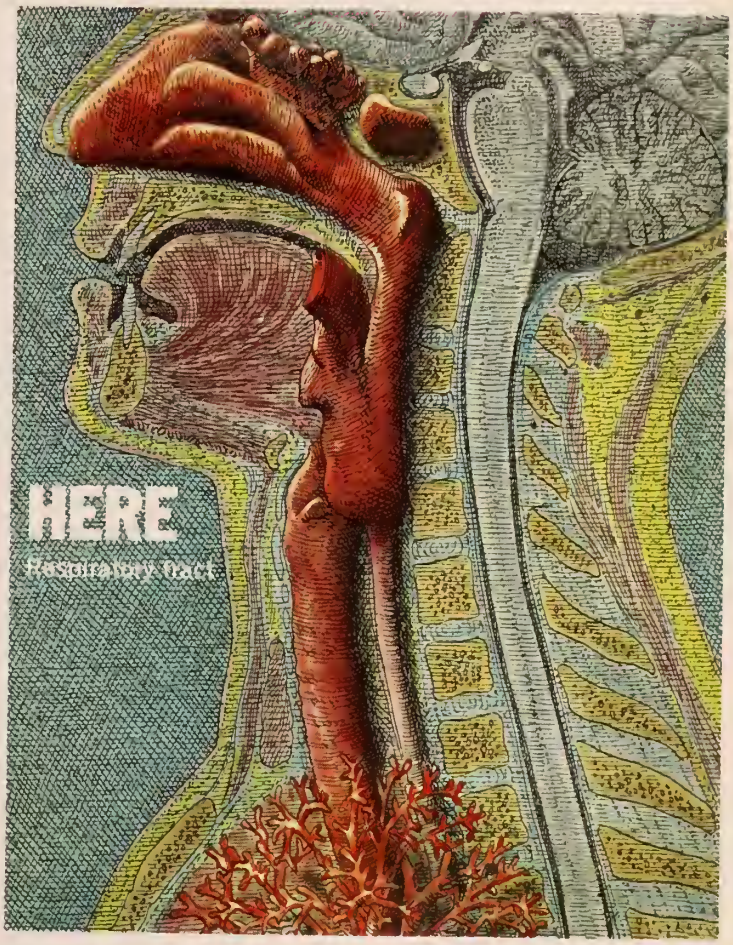
"Abrupt, unexpected termination of established human relationships are difficult for adults to take, and are believed to have a particularly devasting effect on the physical and mental development of infants. Such loss can cause changes in appearance, posture, sleep, and behavior. We must now explore systematically two factors: what are the physiologic processes underlying these changes? What factors aid in recovery in some cases but do not prevent prolonged illness and depression in others?"

Untreated Syphilis in Alabama

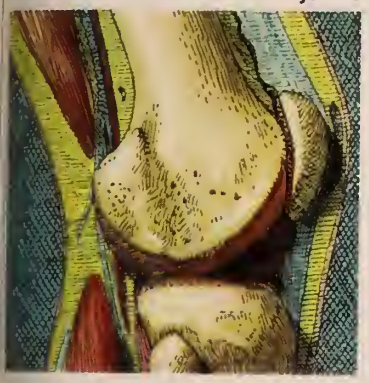
The Department of Health, Education, and Welfare has just ended a 40-year study of the effects of untreated syphilis among a group of black men in Alabama. When it began in 1932 in rural Alabama, the study involved more than 400 black men with syphilis and another 200 who did not have the disease and were used for comparisons. Of the 125 survivors, 50 were in the nondiseased control group.

The report said that no convincing evidence has been presented to indicate that participants in this study were adequately informed about the nature of the experiments, either at its inception or subsequently, and added: "The U.S. Public Health Service from the onset of the study has maintained a continuous policy of withholding treatment for syphilis from the infected subjects. There was common medical knowledge, before this study, that untreated syphilitic infection produces disability and premature mortality." The report further stated "the study of untreated syphilis in black males in Macon County (the Tuskegee Syphilis Study) should be terminated immediately." During the experiment at least 28 men are known to have died of syphilis.

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Overdosage: Keep the medication out of the reach of children since accidental overdosage may cause severe, even fatal, respiratory depression. Signs of overdosage include flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia and respiratory depression which may occur 12 to 30 hours after overdose. Evacuate stomach by lavage, establish a patent airway and, when necessary, assist respiration mechanically. Use a narcotic antagonist in severe respiratory depression. Observation should extend over at least 48 hours.

Dosage forms: Tablets, 2.5 mg. of diphenoxylate HCl with 0.025 mg. of atropine sulfate. *Liquid,* 2.5 mg. of diphenoxylate HCl and 0.025 mg. of atropine sulfate per 5 ml. A plastic dropper calibrated in increments of ½ ml. (total capacity, 2 ml.) accompanies each 2-oz. bottle of Lomotil liquid.

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Indications: Upper respiratory congestion and hypersecretion associated with: the common cold; acute and chronic sinusitis; vasomotor rhinitis; allergic rhinitis (hay fever, "rose fever," etc.).

Contraindications: Hypersensitivity to any component; concurrent MAO inhibitor therapy; severe hypertension; bronchial asthma; coronary artery disease; stenosing peptic ulcer; pyloroduodenal or bladder neck obstruction. Children under 6.

Warnings: Caution patients about activities requiring alertness (e.g., operating vehicles or machinery). Warn patients of possible additive effects with alcohol and other CNS depressants.

Usage in Pregnancy: In pregnancy, nursing mothers and women who might bear children, weigh potential benefits against hazards. Inhibition of lactation may occur.

Effect on PBI Determination and I^{131} Uptake: Isopropamide iodide may alter PBI test results and will suppress I^{131} uptake. Substitute thyroid tests unaffected by exogenous iodides.

Precautions: Use cautiously in persons with cardiovascular disease, glaucoma, prostatic hypertrophy, hyperthyroidism.

Adverse Reactions: Drowsiness, excessive dryness of nose, throat or mouth; nervousness; or insomnia. Also, nausea, vomiting, epigastric distress, diarrhea, rash, dizziness, weakness, chest tightness, angina pain, abdominal pain, irritability, palpitation, headache, incoordination, tremor, dysuria, difficulty in urination, thrombocytopenia, leukopenia, convulsions, hypertension, hypotension, anorexia, constipation, visual disturbances, iodine toxicity (acne, parotitis).

Supplied: Bottles of 50 capsules.

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Presented here are some practical tips about biopsy procedures in granulomatous disease of the lungs.

Biopsy Procedures in Granulomatous Disease of the Lung

Philip J. Kunderman, M.D. and Ralph J. Lewis, M.D./New Brunswick

Thoracic surgeons are frequently called upon to obtain tissue which will allow our pathologists to make a histologic diagnosis. In granulomatous disease of the chest a number of avenues are available to us and we try to proceed along those which are most likely to give us the diagnosis and which are safest and easiest for the patient. In our experience, the diffuse pulmonary granulomatous lesions such as Hamman Rich, eosinophilic granuloma, Wegners, and so on, are not at all common. When our medical colleagues call on us for help we respond, as we do in all cases, with a meticulous history, a careful physical examination, and a review of the work-up to date, available on the patient's records. This will frequently give us a clue or indicate how best to proceed. Usually up to this point the work-up has been rather non-specific in regard to diagnosis. If cervical or axillary nodes are enlarged and suspicious, we would most likely excise one or several of the nodes under local anesthesia and hope that this very safe procedure might give us an answer. And indeed tuberculous lesions, sarcoidosis, and diffuse malignancies are at times encountered which cannot on the x-ray film be differentiated from some of the other granulomata.

However, certain thoracic surgeons feel that in the diffuse parenchymal lesion, it is a waste of time to do anything other than an open lung biopsy. In other words, the quickest and most direct route is a small thoracotomy. Personally, I do not feel this to be necessarily the safest route in terms of morbidity and mortality. In such an instance I would be inclined to do a bronchoscopy as the next step. The visual findings usually would be normal. However, we have been using a maneuver which has been extremely useful and frequently rewarding. Using a 2 mm. cupped biopsy forceps, the tip is pushed through the bronchus wall so that we are now in pulmonary parenchyma. Usually the middle lobe or the lower lobe bronchus is pierced. A bit of lung tissue is then obtained. If I inadvertently grab a vessel, I'm usually aware of this as I try to retrieve the forceps, because it doesn't come away easily. In such circumstances, I simply open the jaws and try a bite elsewhere. We have had no serious bleeding complications. We have, however, had some pneumothoracies which were promptly relieved by intercostal tube drainage. This rather simple maneuver of piercing the bronchus wall with the biopsy forceps, added to the bronchoscopy, will frequently give the answer and establish the nature of the patient's parenchymal lesion, thus avoiding thoracotomy for open lung biopsy. We might also do a mediastinoscopy but I'll discuss this below.

The situation we are most often asked to see

*Read before the Sections on Chest Diseases and Clinical Pathology, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972.

which might turn out to be a granulomatous lesion is the simple pulmonary nodule and the widened mediastinum, with or without hilar density or adenopathy. I recall a chest film of an 18-year old college student with a two month history of non-productive cough and chest pain. The film showed some increased bronchovascular markings and a tendency to slight nodularity. The outstanding feature was the marked bilateral hilar adenopathy. We of course suspected most strongly sarcoidosis, but Hodgkins disease, malignant thymoma, lymphosarcoma, reticulum cell sarcoma, and acute leukemia all had to be considered. Mediastinoscopy seemed like the most direct answer since she had no nodes palpable on examination. Large pale grey fleshy nodes were biopsied and frozen section was reported as granulomatous proliferation consistent with sarcoidosis. She was subsequently treated with steroids by a medical chest physician.

Of all the procedures at our command, mediastinoscopy is probably the most important and rewarding. We have done over 400 of them without any mortality. We have had no injury to the recurrent nerve and no bleeding requiring thoracotomy to control. One of my partners had one episode of frightening, rather than serious bleeding. He allowed the resident to dissect bluntly into the mediastinum and when the resident withdrew his finger there was a gush of blood. He immediately packed the mediastinal space with gauze packing and this fortunately controlled the hemorrhage. Since then we are careful about allowing the residents to do the blunt dissection, since we have no way of seeing what they are doing. Only after he is with us for a while and we know him to be careful and trustworthy will we permit him. We had another obese woman who developed some bleeding diathesis and oozed considerably. She too was packed and controlled.

If we've had any bleeding, we usually can control the ooze with Adrenalin® gauze [illegible] sponge carrier. If a small vein is [illegible] it can often be controlled with a silver clip. In these instances, I usually place a quarter inch Penrose drain in the mediastinum. The drain is usually removed the next day if the dressing is reasonably dry.

We recently published the results on our first 100 mediastinoscopies and found that we obtained a positive diagnosis in 31 which broke down into 4 sarcoid, 4 Hodgkins, 1 malignant thymoma and 22 carcinoma of the lung. By contrast scalene node biopsies gave a positive in one of fourteen and we have, therefore, given up doing scalene nodes if we don't feel an enlarged lymph node on palpation.

I recall a film on a 29-year old man who was entirely symptom free. In the course of a routine examination at his place of employment, a bilateral hilar shadow was noted. It was particularly prominent on the left. Mediastinoscopy revealed enlarged paratracheal nodes on both sides. These were reported as showing confluent non-caseating granuloma compatible with sarcoidosis. He is being followed medically.

In another case, x-ray film of a 56-year old school custodian revealed a RUL nodular density. He had occasional cough with some mucus production and he smoked one pack a day. In 1965 he had had a mitral valvulotomy but gave no history of rheumatic fever. White blood count was 12,700 with 64 polys, 7 mononuclears, and 3 eosinophils. Mediastinoscopy and bronchoscopy were negative. Sputum was negative for carcinoma or tuberculosis. Skin tests resulted in positive PPD—negative histoplasmosis, blastomycosis, and coccidioidomycocis. One week later he was taken to the OR and wedge resection was done. The pathologist reported granuloma of the lung due to encapsulated infarct of the lung and presence of an adult worm probably Dirofilaria immitis. This was interesting because only about a dozen cases have been reported in all the literature. The patient stated that he had a dog in the household with whom he was very friendly. But, of course, this was not significant because the canine heart worm is not transmitted by direct contact but must

go through an intermediate host, the mosquito.

In some instances, when we wish to avoid thoracotomy because of age or other medical disease, we will resort to transcutaneous needle biopsy, using the Vim-Silverman needle. This is done under the image amplifier and the radiologist guides us to the lesion. Here again the only significant complication has been a rare pneumothorax. We avoid the central lesions near the hilus and consequently have had no serious hemorrhages.

Granulomatous disease of visceral or parietal pleura is occasionally encountered in pleural effusions which elude diagnosis by study of the fluid or by needle biopsy of the pleura, using the Lowell needle. Frequently the fluid continues to accumulate despite repeated aspiration. Rather than proceed to open thoracotomy, we will utilize thoracoscopy, using the Jacobaeus thoracoscope. Regrettably, this very useful and very safe procedure has fallen out of favor and I don't know why, other than that we no longer need it to cut adhesions, as we did in the days of pneumothorax therapy for tuberculosis. It is still a very useful instrument for the telescopic visualization of the pleura. Under direct visual control, biopsies of pleural lesions can readily be obtained with accuracy and safety. If need be, it can be done under local anesthesia. Morbidity and mortality are practically nil.

So by careful assessment of the patient and good judgment, biopsies of pulmonary granulomatous lesions can be obtained with a great degree of safety and a minimum of discomfort.

185 Livingston Avenue

Departure of Dr. Marston and Dr. Steinfeld

The firing of Robert Q. Marston, M.D., Director of the National Institute of Health and the only top holdover from the Johnson Administration, prompted some angry reactions from Congress and stunned surprise from the medical academic community. No reason was given for the President's acceptance of Dr. Marston's pro-forma resignation.

Rep. Paul Rogers (D. Fla.), head of the House Health Subcommittee, commenting on the Marston firing, said "every top health administrator now has either resigned or been relieved. This latest announcement precludes any hope of continuity in the health field on the federal level with more than a dozen pieces of health legislation coming up."

Dr. Marston had built strong ties with Congress and the academic research community since he succeeded James Shannon, M.D., at NIH in 1968. NIH's appropriations rose to $2.1 billion with broad new programs on cancer and heart research added in the past two years.

There was no great surprise, however, when the White House announced the resignation of Jesse Steinfeld, M.D., as Surgeon General of the Public Health Services. The 45-year-old Dr. Steinfeld, a career PHS officer who has held the Surgeon General's post since 1969, may be the last man to fill the position. The Administration has made clear its intent to abolish the PHS's Commissioned Corps. In the past several years the Surgeon General has been divested of most of his authority, and the hopes of the PHS Commissioned Corps that it might be revived have faded.

With the massive resignations and firings, only Charles Edwards, M.D., Food and Drug Administration Commissioner, now remains of the old guard.



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Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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To help you manage excessive psychic tension

Cryosurgery has proved itself a good method of palliation in controlling malignant tumors of long bones. It relieves pain and often controls fractures.

Palliative Use of Cryosurgery in Bone Tumors

Franklyn S. O'Rourke, M.D./Livingston

Cryosurgery has become an excellent method of palliation in metastatic and inoperable primary bone tumors. In treatment of a metastatic carcinoma or other malignant secondary bone tumor, it has been found to relieve the majority of the patient's pain and to prevent specific, uncontrolled fracture in the area.

Radiation has long been used in the palliation of malignant tumors. However, radiation has not been too successful for the relief of pain for tumors of the long bones unless a complete destruction is done by the technic of Green or by that reported by the Bethesda Hospital Naval Group, prior to amputation in primary malignant bone tumors. Primary purpose of palliation in a patient with a metastatic carcinoma is (1) to relieve pain, (2) to prevent fracture, and (3) to enable the patient to be moved without causing additional pain or producing fracture. In the 14 cases that we have done at Saint Barnabas, this has been our fundamental goal. No attempt has been made to cure and no attempt has been made to produce an immunologic response, although in two cases, the patients survived much longer than would be anticipated with the amount of disease present. There was no statistically significant lengthening of life of the group as a whole.

We have limited the surgery to the smallest possible degree consistent with getting a freeze and being able to immobilize the site of the tumor. We have found that with intermedullary nailing of the femur by Kuntchner's method and by nailing of the humerus by a Rush Rod technic, our goal has been accomplished. This has been rapid and has caused very little surgical trauma. It has been done without morbidity or mortality.

The technic is adaptable, with the present hospital equipment, to the upper one-half of the average femur using a gynecologic probe of the Linde type. The patient is placed on the unaffected side with leg in a flexed position. The greater trochanter is exposed by means of a two-inch incision, and an alternate trochanteric reamer is used to expose the intermedullary canal. Reaming-freezing is done in stages to prevent displacing unfrozen tumor mass down into the shaft. Once the shaft has been frozen and opened, then a multiple freeze can be done in the usual manner as with Dr. Marcove's method of at least three freezes. For lesions high up in the trochanteric area of the femur, the technic may be combined with x-ray control to show the position of the probe in relation to the tumor areas. Hemostasis may be temporarily controlled by freezing. Following the freezing, a premeasured intermedullary nail of appropriate size is inserted and driven in place. This should be of one size smaller in diameter than that used for fracture treatment to allow easier compression. X-rays of the knee and shaft are taken to be certain that penetration of the knee joint has not occurred.

In the humerus, a similar method is used with a small incision being made over the deltoid.

*Read before the Section on Orthopaedic Surgery, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972.

A portion of the acromion process may have to be excised if the lesion is down in the shaft, strictly due to mechanical position.

The tibia can also be done in this same manner, although a direct approach is probably of greater benefit due to its subcutaneous position and easy accessibility.



Figure I



Figure II



Figure III

We have used a hemovac in our earlier cases but found it to be relatively unnecessary and, therefore, now close the wounds directly.

One of the secondary advantages of this method is that of temporary hemostasis in a rapidly bleeding tumor, such as in the case of a multiple myeloma associated with Paget's Disease. The patient in figure 2 had a "factor five" bleeding problem. The hemostasis is temporary and allows for partial permanent hemostasis of one section of the bone at a time.

There appear to be two types of healing or destruction that take place in our cases. This depends on the appliance used. (1) When a plate has been inserted, the lesion goes on to healing *in situ* with only minimal destruction around the area. (2) In a weight-bearing bone, where a rod has been inserted, the lesion appears to collapse around the rod and goes on to healing with compression and destruction of the lesion. Even where there has been an extremely destructive type lesion,

such as in the myeloma shown, the local lesions have gone on to healing.

Again let me make the point that there has not been an attempt to cure nor do we feel that there has been curing in any of our cases. The purpose has been (1) to relieve pain and (2) to prevent loss of fracture control or prevention of fracture. It is our feeling that cryosurgery, used as an adjunct to fixation, has real merit.

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74 South Livingston Avenue

Physician's Responsibility for Varying Drug Use

The following comes from the October 1972 issue of the FDA Bulletin:

Physicians have been concerned that failure to follow the labeling of a drug may render them liable for malpractice. Although labeling, along with medical articles, texts, and expert opinion may constitute evidence of the proper practice of medicine, it alone is not controlling on this issue.

The labeling is not intended either to preclude the physician from using his best judgment in the interest of the patient, or to impose liability if he does not follow the package insert. A physician should recognize, however, that the package insert represents a summary of the important information of the conditions under which the drug has been shown to be safe and effective by scientific data submitted to FDA. When the unapproved use of an approved new drug becomes widespread or endangers the public health, FDA is obligated to investigate and to take whatever action is warranted to protect the public. Several alternative courses of action are available. These alternatives include: requiring a change in the labeling to warn against or to approve the unapproved use, seeking substantial evidence to substantiate the use, restricting the channel of distribution, and even withdrawing approval of the drug and removing it from the market in extreme cases. When necessary, FDA will take whatever action may be required to bring possible harmful use of an approved drug under control.

FDA regulations require the labeling to contain information with respect to all intended uses of the drugs. Thus, when a manufacturer or his representative, or any person in the chain of distribution, does anything that directly or indirectly suggests to the physician or patient that an approved drug may properly be used for unapproved uses for which it is neither labeled nor advertised, that action constitutes a direct violation of the Act and is punishable accordingly. FDA believes it important that the public, the medical profession, and the pharmaceutical industry fully appreciate the statutory provisions enacted by Congress that are controlling under these circumstances. Therefore, it has proposed a regulation which sets forth the principles enunciated in this article. The full text of the regulation is available by writing to the Hearing Clerk, Department of Health, Education, and Welfare, Room 6-88, 5600 Fishers Lane, Rockville, Maryland 20852.

FDA welcomes the views of physicians on this proposed regulation. Comments may be sent to the above address.

"The history of science, and in particular the history of medicine...is... the history of man's reactions to the truth, the history of the gradual revelation of truth, the history of the gradual liberation of our minds from darkness and prejudice."

–George Sarton, from "The History of Medicine Versus the History of Art"

Are there significant differences in bioavailability and clinical predictability among drug products?

Opinion

Results of a questionnaire to 7,000 physicians:

44.6%
Agree there is a significant difference

24.9%
Believe there is no difference

30.5%
Had no opinion

Are there significant differences in bioavailability and clinical predictability among drug products?

Teacher of Medicine

Alfred Gilman, Ph.D.
Wm. S. Lasdon
Professor & Chairman
Department of
Pharmacology
Albert Einstein
College of Medicine of
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

The Problem of Controlling Bioavailability of Generics

The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

Clinical Predictability More Important Than P

Although the questio price has been greatly aggerated, it is true patients can on occas save money on gene drugs. But you are not ing to dare attempt to s money if it jeopardizes patient's health. Let's turn to the example has become very promi in recent years, that of cardiac glycosides. T are probably the most drugs we use with res to the small difference tween a maximally effec dose and a toxic dose. W you are dealing with d of this type, the first cern must be clinical dictability. At the ris variations in bioavaila ity, it would be sheer f to try to save the pat what might amount maybe $10 or $20 a y The physician cannot n age his patient unless h sure that the drug h prescribing has the s positive effect each the prescription is renew This is especially sig cant when the patient t the product, not for mor but for the rest of his li

Maker of Medicine

C. J. Cavallito, Ph.D.
Executive Vice President
Ayerst Laboratories



Although equivalence of ifferent preparations of a *rug substance* may be de- ned by certain physical, iemical or biological char- teristics, identity is not ways assured even though iese characteristics may e described in compendia ich as the USP, NF or de- ned by other specific ource standards. More- ver, even with equivalent rug substances, similar harmaceutical *products* an be produced by differ- nt manufacturers such iat these products are bio- gically or therapeutically iequivalent.

A Growing Awareness of Potential for Nonequivalence

As experience increases ith drug substances de- ved from different sources nd under different condi- ons, it should be possible establish specifications in ufficient detail to minimize he potential for their non- quivalence. However, here is general agreement hat product therapeutic quivalence would still not e assured even if one could minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

Newer Bioavailability Studies Reveal Differences

Bioavailability may be defined as a measure of the rate and amount of absorption of a drug substance from its administered dosage form. For several years pharmaceutical scientists have proposed that bioavailability data on presumably equivalent dosage forms provide the best measure of product equivalence—short of adequate clinical trial. In their continued search for shortcuts to the evaluation of product equivalence, medical and pharmaceutical scientists have increasingly relied upon bioavailability characteristics as reflected by blood levels of a drug after its administration to human subjects.

Leading manufacturers now conduct comparative bioavailability studies on their own product dosage forms after production process changes that would have been considered inconsequential a few years ago. This isn't surprising; since there are so many possible differences in production operations that the opportunities for inequivalent generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalance have appreciably improved.

Product Selection Based on Patient Response

Improved specifications and standards can better assure the equivalence of *drug substances*. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the *drug product*, not the *drug substance*, that the physician, pharmacist, nurse and patient-customer utilize. How can these individuals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

Opinion & Dialogue

What is your opinion, doctor?
We would welcome your comments.

P·M·A

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Clinical Data:
Patient: 47-year-old male.
Diagnosis: Severe pyoderma, left hand.
Culture: *Staphylococcus aureus, coagulase* positive and sensitive to MINOCIN.
Temperature: 102° F
Therapy: MINOCIN Minocycline HCl Capsules, 100 mg: 200 mg *stat,* 100 mg every 12 hours. Medication began 9/7/71. By fourth day, temperature was normal and pustular lesions considerably improved. Last dose taken 9/14/71.
Concomitant therapy: None.†

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Indications: For the treatment of susceptible infections; e.g., *E. coli, D. pneumoniae.* For full list of approved indications consult labeling.
Contraindications: Hypersensitivity to any tetracycline.
Warnings: The use of tetracyclines during tooth development (last half of pregnancy, infancy and childhood to the age of 8 years) may cause permanent discoloration of the teeth (yellow-gray-brown). This is more common during long-term use but has been observed following repeated short-term courses. Enamel hypoplasia has also been reported. Tetracyclines, therefore, should not be used in this age group unless other drugs are not likely to be effective or are contraindicated. In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, use lower total doses, and, in prolonged therapy, determine serum levels. Photosensitivity manifested by an exaggerated sunburn reaction has also been observed in some individuals taking tetracyclines. Advise patients apt to be exposed to direct sunlight or ultraviolet light that such reaction can occur, and discontinue treatment at first evidence of skin erythema. Studies to date indicate that photosensitivity does not occur with MINOCIN Minocycline HCl. In patients with significantly impaired renal function, the antianabolic action of tetracycline may cause an increase in BUN, leading to azotemia, hyperphosphatemia, and acidosis. CNS side effects (lightheadedness, dizziness, vertigo) have been reported, may disappear during therapy, and always disappear rapidly when drug is discontinued. Caution patients who experience these symptoms about driving vehicles or using hazardous machinery while taking this drug. *Pregnancy:* In animal studies, tetracyclines cross the placenta, are found in fetal tissues, and can have toxic effects on the developing fetus (often related to retardation of skeletal development). Embryotoxicity has been noted in animals treated early in pregnancy. Safety of use during human pregnancy has not been established. *Newborns, infants and children:* All tetracyclines form a stable calcium complex in any bone-forming tissue. Prematures, given oral doses of 25 mg/kg every 6 hours demonstrated a decrease in fibula growth rate, reversible when drug was discontinued. Tetracyclines are present in the milk of lactating women who are taking a drug of this class.

Precautions: Use may result in overgrowth of nonsusceptible organisms, including fungi. If superinfection occurs, institute appropriate therapy. In venereal diseases when coexistent syphilis is suspected, darkfield examination should be done before treatment is started and blood serology repeated monthly for at least four months. Because tetracyclines have been shown to depress plasma prothrombin activity, patients on anticoagulant therapy may require downward adjustment of such dosage. Test for organ system dysfunction (e.g., renal, hepatic and hemopoietic) in long-term use. Treat all Group A beta hemolytic streptococcal infections for at least 10 days. Avoid giving tetracycline in conjunction with penicillin.

Adverse Reaction: GI: (with both oral and parenteral use): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in anogenital region. *Skin:* maculopapular and erythematous rashes. Exfoliative dermatitis (uncommon). Photosensitivity is discussed above ("Warnings"). *Renal toxicity:* rise in BUN, dose-related (see "Warnings"). *Hypersensitivity reactions:* urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus. In young infants, bulging fontanels have been reported following full therapeutic dosage, disappearing rapidly when drug was discontinued. *Blood:* hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia. *CNS:* (see "Warnings.") When given in high doses, tetracyclines may produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

NOTE: Concomitant therapy: Antacids containing aluminum, calcium, or magnesium impair absorption; do not give to patients taking oral minocycline. Studies to date indicate that absorption of MINOCIN is not notably influenced by foods and dairy products.

***Indicated in infections due to susceptible organisms. Culture and sensitivity testing recommended. Tetracyclines are not the drugs of choice in the treatment of any staphylococcal infection.** †Case Report, Clinical Investigation Department, Lederle Laboratories.

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Here is a novel treatment technic that can combine business and pleasure.

Personality and Duplicate Bridge

Therapeutic Application

Seymour F. Kuvin, M.D./Newark

In a previous article[1] it was demonstrated that duplicate bridge could be used as a tool in exploring psychodynamics and psychopathology, and may even be a therapeutic experience. A brief discussion of aggression, the effect of affects, and communication within the framework of the bridge game was presented. In the current article, an experimental therapeutic application is presented as an example of the many uses that can be made of the emotional interaction inherent in this game.

A 20-year-old single male student was in his senior year at college, majoring in mathematics. His grades had been superior all through his college career. He called this office after suffering severe depression for several months. He had feelings of helplessness, hopelessness, and despair. There was weight loss due to anorexia. Insomnia had reached a point where he began to consume alcohol in large quantities to obtain sedation and relief from emotional pain. His personal appearance had deteriorated, and he was wearing denims for weeks without washing them. His hair was unkempt and long and he was unshaven. He had never used drugs illegally. He is a "loner" and has no close friends, nor does he partake of the usual social activities offered to college students. He has made no plans for his future after graduation, saying "what's the use—it doesn't matter." He exhibited the criteria of depression outlined by Beck,[2] namely alteration in mood—sadness and apathy; negative self-concept; desires to escape and hide; vegetative changes—anorexia, insomnia; and change in activity level—retardation.

He had lived at home during his college career, alone with his mother and father. His father is a rather rigid, uncommunicative person, and there is little interchange between him and his father. They do not eat dinner together because he finds his father's pompous preaching at the dinner table too much to bear. Our patient had considerable hostility, even murderous rage toward his father which has been repressed. His mother is an ineffectual woman whose marital lot is an unhappy one, and he looks upon her as a "nuisance" and also has repressed hostility toward her. He says that the only reason he stays at home is because "it's better than being in a room alone, and I don't have the money to live alone."

The patient had played bridge in the past and as part of the therapeutic situation he was encouraged to play bridge twice weekly at a duplicate bridge center where he could be observed by this therapist. Anonymity was preserved and the setting was such that no one could perceive the relationship between this man and the therapist. It was possible to observe him without being proximate to him. No verbal communication transpired during these sessions between the patient and the therapist. His bridge partner was selected by the club director at random, but he preferred, and always played with, a male partner in his own general age group. He was observed over a period of twelve weeks, and after the initial

three sessions no longer had any uncomfortable feelings about his being observed.

Duplicate bridge tournament sessions are approximately three hours in length and consist of playing hands against seven or eight other team pairs.

Therapy sessions after the bridge tournament were concerned with emotional response, personal interaction with partners and opponents, and behavior after the tournament. After the initial twelve weeks, the patient and this therapist played as partners for a subsequent twelve-week period (confidentiality of the doctor-patient relationship was carefully and easily maintained) which this therapist found to be an extremely fruitful experience in terms of communicating with the patient and gaining information about his personality structure.

Observations

Although our patient exhibited signs of hopelessness and helplessness in life, in the competitive situation at the bridge table, he became aggressive in his bidding, and took great delight (overtly conveyed by facial expression) in using competitive bidding technics to bring the opposition to overbid, so that he could invoke a penalty double. His aggression was inordinate and far in excess of that of the vast majority of the players. In addition, there was evidence of excessive super-ego structure. This was well demonstrated by an occasion when he hesitated for a long time in response to his partner's bid. The director was called by the opposing team because this hesitation may have conveyed information to his partner in an illegal fashion. The director apparently represented rigid authority to the patient, who manifested symptoms and signs of anxiety. He began to perspire and became uncomfortable in his seat, shifting from side to side. When the director ruled against his partnership, he then became more comfortable, and assumed his former aggressive position.

It was interesting to note that as long as the patient remained in an aggressive situation, the overt signs of depression were not in evidence, but the moment the tournament was over, the signs returned. He would not be interested in the score and just left the building. Nevertheless, he subjectively felt less depressed for a period of time after the tournament which was probably the result of his sublimated expression of rage and hostility *via* bridge.

Interesting too was the play with this therapist as a partner. The most prominent feature of this phase was the displacement of the hostility from the opposition onto the therapist, thereby destroying the partnership play and resulting in poor scores. It was as though he were loosing his rage upon authority, destroying it (but also himself at the same time) thereby punishing himself for this attack. After several sessions, he discovered that the hostile attitude to this therapist was destructive and once again turned his aggressive direction to the opposition, after which he enjoyed the communication with his partner. Despite the initial poor scores, elation followed the tournament play of a greater degree than occurred with a random partner, and for a longer period of time. Toward the latter part of the second phase, the patient's appearance was considerably improved and he began to become socially involved and finally the bridge sessions were terminated because of his heavy social and recreational schedule.

Comment

Aggression was demonstrated in a preceding paper[1] by this author, as a force which can be a goal-directed, healthy, realistic component of the personality, useful as a problem-solving measure and defense against attack.[3] The use of aggression at the bridge table is a healthy pursuit and can provide pleasure in terms of solution of unconscious conflicts. Duplicate bridge can also be used in a therapeutic situation as demonstrated by the experimental findings in this case study. The many responses of the patient to emotional interaction occurring during the play can be studied and interpreted during therapy. Although many

games have been used in therapeutic situations in the past[4] (dolls and houses, paints, and so on) most of these have been limited to child therapy as a means of enhancing expression. Seldom have adult games been used as a study and therapeutic aid. This patient no doubt increased his communicative proficiency *via* the medium of duplicate bridge by channeling his aggression in a goal-directed fashion. This channeling technic was apparently applied to daily life.

Summary

Duplicate bridge as an aid in psychotherapy has been demonstrated to be useful in both study and interpretation. Although the experimental situation was limited to one patient, this game offers excellent opportunities in group therapy.

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268 High Street

Alternative Method of Teaching Children to Read

Children with reading difficulties will profit from a linguistics study being conducted at the University of Pennsylvania under a grant from the National Institute of Mental Health. Dr. Lila R. Gleitman, Professor of Linguistics in the School of Education, and Dr. Paul Rozin, Professor of Psychology, plan to expand a syllabary method of teaching reading to youngsters. This method uses the syllable as the basic language unit rather than the phoneme, which breaks the sound and structure of words into letter-by-letter components. In a reading primer based on the syllabary approach, some syllables may be represented as pictures. For example, a drawing of a bumblebee may indicate "be" as in the first syllable of "before." Thus, the relation between sound and meaning is obvious to the child.

The scientists plan to use a combination of pictures and simple written syllables to construct stories. "Reading" of these materials can be accomplished almost immediately, satisfying the child and motivating him to further reading development. Gradually he learns that the syllabic units may be combined to yield additional meaningful words. In this manner, he is shown that orthography—the written word—parallels the sound and meaning of language.

When the child is competent in the syllable method of reading, he is taught that the alphabetic unit—the phoneme—is a more efficient means of work production than is an increasingly large number of memorized syllables and pictures.

Dr. Gleitman and her associates will analyze children's "linguistic environments" by comparing the manner in which parents speak to their own children with the manner adults in general use in speaking to young children. The study of parent-child dialogues will be helpful in understanding how children acquire language patterns.

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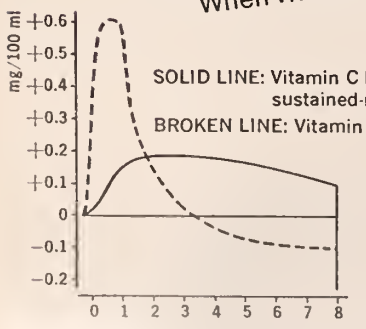


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For the office practitioner, here is a practical guide.

Modern Office Refraction Procedure*

Paul L. Carmichael, M.D./Lansdale, Pa.

Refraction is an art, not a science. Like most of the areas of medical diagnosis and treatment it is the application of scientific principles in a practical manner to each patient that allows us success in his treatment.

The "modern office procedures" which I shall here outline are all based on old principles and adaptations thereof to the examination of the patient. I will list some methods used in our office practice and will discuss some topics of interest to the refractionist.

When we measure a so-called visual acuity it behooves us to realize the nature of the information we are receiving from the patient. Snellen test types are really arbitrary figures compiled after researching numerous so-called normal populations. Each letter subtends a visual angle of one minute of arc but there are many individuals for whom this measurement is less than adequate as a visual standard. In our testing illumination is constant. The images viewed are static.

In this age of high speed ground and air travel it is no longer a certainty that an individual whose acuity is apparently satisfactory in an office testing environment has equally satisfactory vision as a driver of a vehicle under varying conditions of speed and illumination. Taking into account the blink rate and the interblink interval, we are blind for a small portion of every trip at sixty to seventy miles an hour. Measurement of the acuity of the individual is but a small part of the visual efficiency of the patient.

During the testing of the acuity it is important to listen to the manner in which the patient reads the chart. Sometimes failure to see letters at the beginning or end of a line may signify a field cut. Transposition of letters (or substitution of letters or numbers) may indicate a perceptual problem. The persistence of a scotoma from the retinoscope lamp may signify a macular problem. It isn't important how perfectly the letters are seen. The facility with which they are read will tend to signify alertness or depression in a patient.

Visual efficiency deteriorates after the age of twenty. A decrease of 3 to 4 per cent per year is seen in some individuals. Visual efficiency drops rapidly after the age of sixty. The older the individual the more light will be necessary for him to complete his visual tasks efficiently and to read a Snellen chart with ease.

In a modern ophthalmic practice a visual screening apparatus has replaced the standard Snellen testing technic. Nothing in my experience is as accurate in testing near and distance vision as a Prince rule and a Snellen chart. The venerable Maddox wing was also a fine apparatus for measuring muscle balance. However, screening instruments such as the Titmus vision screener will serve the nurse or technician as a means of "starting" the patient before inserting a mydriatic or cycloplegic. The screener is designed to test vision for distance and near as well as testing for color vision and muscle balance. It is a fairly accur-

*Read before the Section on Ophthalmology, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 7, 1972.

ate method of testing but its limitation in older age groups is marked especially for patients wearing bifocals. The screener also has a built-in error of accommodation. Since it is a small box, patients tend to accommodate even for distance vision. No matter what the manufacturer tells us, this error must be taken into account when using the apparatus. Nevertheless it is a space saver and a time saver and can be operated accurately by inexperienced personnel.

The history includes careful questioning concerning drug allergies, therapy hospitalizations, and family history. The patient is then placed at the screener and the technician tests for distance and near acuity as well as muscle balance. After this, (depending upon the age of the patient) a cycloplegic or mydriatic is instilled. We prefer cycloplegic up to the age of twenty. Beyond this a mydriatic such as 1 per cent Tropicamide® is used. Of course there is some cycloplegia with this agent also. In very young children, especially those with pigmented irides we employ 2 per cent cyclogyl. In patients with lighter irides 1 per cent cyclogyl usually suffices. Mydriacyl over age twenty gives us a combination of mydriasis and cycloplegia with which we have learned to work easily thus ordering our prescriptions as though we were at post refraction in most instances. Often we will uncover astigmatism and hyperopia not found in patients previously undilated. The fundus examination and biomicroscopy can be carried out with the facility. Every patient is dilated in our office. In twenty years of practice I have induced two attacks of narrow angle glaucoma both of whom benefited from subsequent surgery. I do not believe a patient can be adequately examined without dilatation of the pupils at any age.

Loose lenses give a more accurate clinical view of the finished spectacle and make the testing of the near point and final muscle balance more accurate. In spite of this, most of us today have abandoned loose lenses and test frames for the use of the phoropter. The limitations of near point testing with the phoropter are such that we cannot accurately measure the near point with the phoropter in place. The eyes must converge and look in a slightly downward position of this measurement to be accurate, especially in presbyopic measurements for the bifocal addition. Ideally, when the refraction is completed the near points should be tested with the Prince rule with each eye separately in the presbyope with the addition for near in place. Ideally then the near points should be equal in both eyes if the distance prescription is correct. With the phoropter and dilatation this cannot be done accurately. On page 254 of *Cowan's Textbook of Refraction*† will be found the following notation: "Although considerable variation will be found, the age of the patient is an important factor and it will be well to begin by adding:

"0.50 to 1 D up to forty-five years of age
1.25 to 1.75 from forty-five to fifty years of age
2.0 to 2.25 D from fifty to fifty-five years of age
2.50 D past fifty-five years of age."

Cowan also cautions "Be sure the near point is no closer than 25 centimeters. This will allow a wider region of distinct vision." To comply with this statement we have found it best to back-up the recommendations of the add by five years in each case. This has worked well in almost every patient we have encountered. Such a table can be used only if the distance refraction is accurate in each eye. A patient with subnormal distance vision cannot, of course, have anything but subnormal near vision.

With the phoropter it is simple to perform muscle balance testing for distance and near with the Maddox rod. This should be tested at the end of the refraction with the correction in place.

The patient approaching presbyopia who has visual acuity of 20/30 or better in each eye can sometimes be saved a premature bifocal by binocular refraction "pushing" as much plus on the distance refraction as the patient can tolerate. This will in most instances afford

†Published by Lea and Febiger, Philadelphia, 1948.

them comfortable near vision without the distraction of blurring at distance. No patient is more ungrateful than one who has been prematurely given bifocals. More than a matter of vanity, it is often a problem of confusion in learning to wear a type of lens which is not physiologically acceptable. It would be well for all of us to remember to try to uncover all the hyperopia possible in the forty-year-old patient with asthenopic symptoms for near vision.

One of the most neglected problems in refraction that I have found has been that of anisometropia. We find many unhappy patients whose prescriptions are technically correct except that the refractionist has forgotten to take into account the effects produced by anisometropia. The adult usually has difficulty in wearing ordinary spectacles when the difference between the two eyes is greater than two diopters. The difference in image size may be bothersome to the patient, but the greatest discomfort is due to the artificial heterophoria created whenever the eyes move from the primary position, for with two diopters difference in optical correction one prism diopter of deviation is incurred if the gaze deviates 5 millimeters from the optical axis. Be careful to check the muscle balance in all patients with differing corrections—especially astigmatic—in the two eyes. Sometimes a one or two diopter prism will correct the heterophoria and afford the patient all the comfort he had hitherto been seeking.

Accommodative spasm is another culprit which stalks our office practices more so today than ever before. A common response to accommodative fatigue, it is caused by overwork fatigue and emotional stress. Subjectively all the symptoms of accommodative asthenopia are present and usually become accentuated with close work—pain referred to the brows headache, early fatigue, and inability to maintain visual and mental concentration. Convergence excess of insufficiency can accompany this problem. Detection is obvious when subjective and objective tests of refraction give variable results. Here again cycloplegic refraction is helpful in determining the true refractive error.

The patient with changing refractive error should be suspect not only of glaucoma or cataract or uveitis but also of systemic disease. Very often the early hyperthyroid or diabetic will present to you as a slightly different refractive error. The refractionist should always be aware of this in his patient. Of course, the complete examination of the eye should rule out the ocular problems satisfactorily. However, a blood sugar, glucose tolerance test, and a PBI should be the least we can suggest to the patient's physician when we suspect a refractive change we cannot correlate with past experience.

The most distasteful part of office practice is the patient who returns because he is dissatisfied with his lenses. It is common practice to wear a demeanor of scorn when the patient enters complaining that you have wronged him. If we would take the attitude that we might learn something, we might find we can learn a great deal from the complaining patient. Listen to his story calmly and carefully. Keep an open mind. Remember you are not God and that you have been wrong once or twice in your lifetime. Very often the patient is merely slightly over-plused or you may have undercorrected a presbyopia because you were not aware of the working conditions of the patient. Often a considerate explanation and a correction of the problem will afford you a better understanding of the patient's peculiar working conditions and enable you thereafter to continue to take them into account throughout all his other visits. You have then become a valuable aid to your patient. Sometimes patients will develop a clinical problem after they have had their new lenses made. Do not miss this problem because you may have felt it was centered in the lenses and not the optic nerve or macular area. Take the time to listen and to observe. Recheck the refraction completely if you must.

Finally I would like to emphasize that for complete examination all pupils should be dilated. Each patient who has any kind of

problem should be refracted. Somewhere along the line ophthalmologists have been taught to believe that the only successful ophthalmologist is the surgeon and that refraction should be relegated to the deep dark corners of hell. You cannot be a diagnostician in ophthalmology unless you refract. The ability to be a good refractionist leads to the surgical suite in a shorter time than many of our young residents think.

601 East Main Street

Life Support at the Scene of the Emergency

Few of us have given thought to the role of the ambulance personnel in our personal lives. Generally, he has been the "good Samaritan" who came when someone was in need of urgent help. Knowing more about emergency care than the average citizen, his presence at the time of emergency has provided a sense of assurance. His ability to transport the emergency victim to centers for more specialized care has provided a much-needed capability.

Public agencies and medical organizations have been slow to develop a factual basis on which to plan emergency care prior to hospitalization. Approximately 800,000 United States citizens experience a heart attack each year. These heart attacks result in 400,000 deaths, 250,000 of which occur before the patient reaches the hospital.

The number of injured each year exceeds 50 million. Of this number 2 million are hospitalized and 107,000 die. Traffic victims alone number 3,500,000 injured and 57,000 deaths. These figures, incomplete as they are, suggest the heavy responsibility placed upon ambulance personnel. Under the existing system only the ambulance attendant will have an opportunity to save the life of many patients with heart attacks or with traffic injuries. Has our system of emergency care prepared him to accept this responsibility? This may prove to be one of the weakest links in our system of delivery of emergency services.

The "good Samaritan" approach to today's emergency victim is incomplete. Ready availability of ambulances, rapid transportation, and the fundamental concept of doing no harm to the victim are not sufficient. Instead, the ambulance attendant of the future (emergency medical technician-ambulance) must be trained to a level similar to that of coronary care nurses or nurse anesthetists. To meet such problems as movement of the victims and their extrication from wrecked automobiles, it is probable that the majority of the ambulance attendants will be men. Such individuals will need to be career oriented and will require training of perhaps two years duration. Training must center upon life support. It must be of sufficient intensity to provide the ambulance personnel with the ability to evaluate the seriousness of the illness and the need to institute immediate treatment. He must be capable of deciding to which hospital the patient should be taken. He will require operational knowledge of radio equipment including the transmission of electrocardiograms and other vital signs by radio to the hospital base.

Recruitment, training, and placement of a national corps of career ambulance attendants (emergency medical technician-ambulance) will require a national effort including the provision of a legal basis for these services.

Means must be sought to provide a salary for the career-oriented attendants. As with law enforcement, and frequently with fire protection, it may be necessary for local government to provide the financial basis for ambulance services or to see that such a financial base is provided by others.

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Cholestatic hepatitis with jaundice and altered liver function tests, s as increased BSP retention and rises in SGOT levels, have been repor after Methyltestosterone. These changes appear to be related dosage of the drug. Therefore, in the presence of any changes in li function tests, drug should be discontinued.

PRECAUTIONS: Prolonged dosage of androgen may result in sodium a fluid retention. This may present a problem, especially in patie with compromised cardiac reserve or renal disease. In treating ma for symptoms of climacteric, avoid stimulation to the point of incre ing the nervous, mental, and physical activities beyond the patien cardiovascular capacity.

CONTRAINDICATIONS: Contraindicated in persons with known or s pected carcinoma of the prostate and in carcinoma of the male brea Contraindicated in the presence of severe liver damage.

WARNINGS: If priapism or other signs of excessive sexual stimulat develop, discontinue therapy. In the male, prolonged administration excessive dosage may cause inhibition of testicular function, w resultant oligospermia and decrease in ejaculatory volume. Use ca iously in young boys to avoid premature epiphyseal closure or p cocious sexual development. Hypersensitivity and gynecomastia occur rarely. PBI may be decreased in patients taking androge Hypercalcemia may occur, particularly during therapy for metas breast carcinoma. If this occurs, the drug should be discontinued.

ADVERSE REACTIONS: Cholestatic Jaundice • Oligospermia and creased ejaculatory volume. • Hypercalcemia particularly in patie with metastic breast carcinoma. This usually indicates progression bone metastases. • Sodium and water retention. • Priapism • Vir zation in female patients • Hypersensitivity and gynecomastia.

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Special Article

We must, says Dr. Rogers, act upon, not just react to, the changes in methods of distributing medical care.

The Winds of Change in Medical Practice*

James A. Rogers, M.D., Paterson

I dare say that there is no one in the audience who has not experienced a change in the way medicine is presently being practiced, compared to the way it was practiced when he or she was graduated from medical school. Delivery of health care has changed dramatically and rapidly over the past ten years. When we examine the situation, we discover it is society itself that is demanding the change, because it is not satisfied with the situation as it exists. Many feel that there will be a significant climate for change in personal health services in the 1970's and that the response will be from pressures and demands of the public. Pressures from the public develop customs. It has been tradition that laws usually follow customs. History has demonstrated this point, time and time again.

Although there is disagreement about the nature of changes likely to occur, there is agreement that change is inevitable. Our problem is, in what direction and how rapidly will we move, and how will we, from our experience (keeping the entire problem in the proper perspective), affect custom.

Legislative proposals for national health insurance are many, with a wide variation in their financing provisions. None is designed to be a complete replacement overnight as some of us suspect. However, all of these proposals have comparable objectives, namely:

1. To develop prepaid, well organized comprehensive health care systems serving defined populations.

2. To offer a choice to the people of the type of health care system they may use. No monolithic system of health is envisioned.

3. It is hoped to promote alternatives to the existing system, believed to have certain advantages, so that citizens can choose the kind of system they want.

4. Another objective is to develop efficiency of the system, with built-in control of the quality and delivery of patient care.

5. Another objective is cost control, with provisions of incentives for cost control by the delivery system itself, with predictable prepaid contracts for beneficiaries.

6. Incentives for health maintenance rather than crisis-oriented health care must be developed.

7. It is hoped that the maldistribution of health services will be corrected. The system should not be limited to the poor. The more affluent population must also be eligible to receive support.

Comprehensive delivery systems are necessarily committed to delivering *total care*. The components of such systems, according to proposed HMO legislation, can be identified as five in number.

1. *Health Maintenance*—Including all outpatient, non-acute, ambulatory care, whether delivered in a central clinical setting or a physician's office and including also short-term, long-term, and chronic, as well as health assessment examinations.

2. *Emergency Care*—Including all acute care delivered, whether in a hospital emergency room, a central clinical setting, or the patient's home.

3. *Inpatient Care*—Hospital care, whether intensive, acute, convalescent, or chronic care.

4. *Extended Care Facilities*—Extended non-hospital institutional care, including both skilled nursing care and custodian care of patients.

5. *Home Health Care*—Including all non-acute domiciliary care, whether delivered by a physician or other professional personnel.

What are the proponents of HMO's really saying, and what are they asking for?

1. That the entire population in this country receive quality patient care.

2. The proposed system is not necessarily designed to create new health services, but to reorganize those that exist for better distribution and availability, in order to meet the needs of *all* the people at a reasonable cost on a prepaid *per capita* basis.

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*Presented before the Union County Medical Society, January 12, 1972. Dr. Rogers is First Vice-President and Chairman of the Committee on Medical Education of The Medical Society of New Jersey

3. The HMO must be developed and operated by providers of health care and by consumers. It must be a joint venture that will benefit and, hopefully, succeed by the input and cooperation of all concerned.

4. HMO's may not be the panacea, for if they lack the advantages outlined in the objectives, they will fail because no one will use them. However, should all segments of the population judge them successful, there will be no further debate.

Presently, there is considerable confusion as to exactly how we develop a complete HMO system. Many feel that nothing should be attempted until a detailed plan is devised, a plan that is guaranteed to work from the start, with no questions left unanswered. It is precisely this point that everyone wants answered, not only the physician and the patient, but the third party payer, industry, labor, and the general public as well. It is perhaps for this reason that we must all band together to tackle the problem. We must offer the expertise needed to reach a workable plan. With continued cooperation the program can be improved and its flaws can be corrected.

Past experiences in the delivery of health care have varied, and the span is wide—from the solo general practitioner of years ago, who, by the way, was the HMO of his practice in his community, to a shift in the ratio of general practitioners to specialists, causing the overwhelming proportion of highly trained specialists now available. We have also noted the increasing number of group practices which are operating well. Much of this change is the result of the technologic advances in medicine and the demands for specialization. The present medical system is more capable of dealing with the more exotic and heretofore hopeless diseases, but it has created a problem of maldistribution of primary patient care. We are also aware of other changes present today, changes in the modes of living, and the thinking and the habits of our society. We are aware of the rapid increase in the population.

Our present system of the delivery of health care is not meeting the demands that the people are expecting of us, yet conscientious physicians are devoting more time to their practice and to the medical needs of their community than ever before. All this criticism we hear must be primarily directed to the existing health care system and not to the physician alone. I wonder if what we are hearing from the public isn't, "*Health care is a community problem and a people's problem. We want the experts in health matters, namely the physicians, to lead us in solving these problems.*"

I do not adhere to the notion that *they* will do it for us. History indicates that the physician has always risen to the occasion and answered the challenges before him. What proof do we have of this. Physicians today are more involved in matters of health care than ever before. Consider the time you spend in your hospital, or in the activities in your medical society, or in your community on various committees pertaining to health care.

Consider the number of groups and foundations springing up all over the country. California alone has over 15 foundations allied with county medical societies, not counting groups and organizations such as Kaiser Permanente, HIP, and many others. Industry and labor have medical organizations serving a needed function. None of them is perfect, but they are succeeding in serving some function. They provide examples we can study in an attempt to derive the best of each operation toward developing the best program, to meet the needs for *our* community.

The medical profession is asked not to react but to act. It is asked not to obstruct but to take the lead and the initiative as experts (with their partners in the community) to develop a system wherein the physician will be the guardian of the health care of the people he serves, and also to see to it that others in the community do their part equally well, whether they are people, payers, politicians, providers, or patients. This is our charge as I see it. This is what society is asking us to do.

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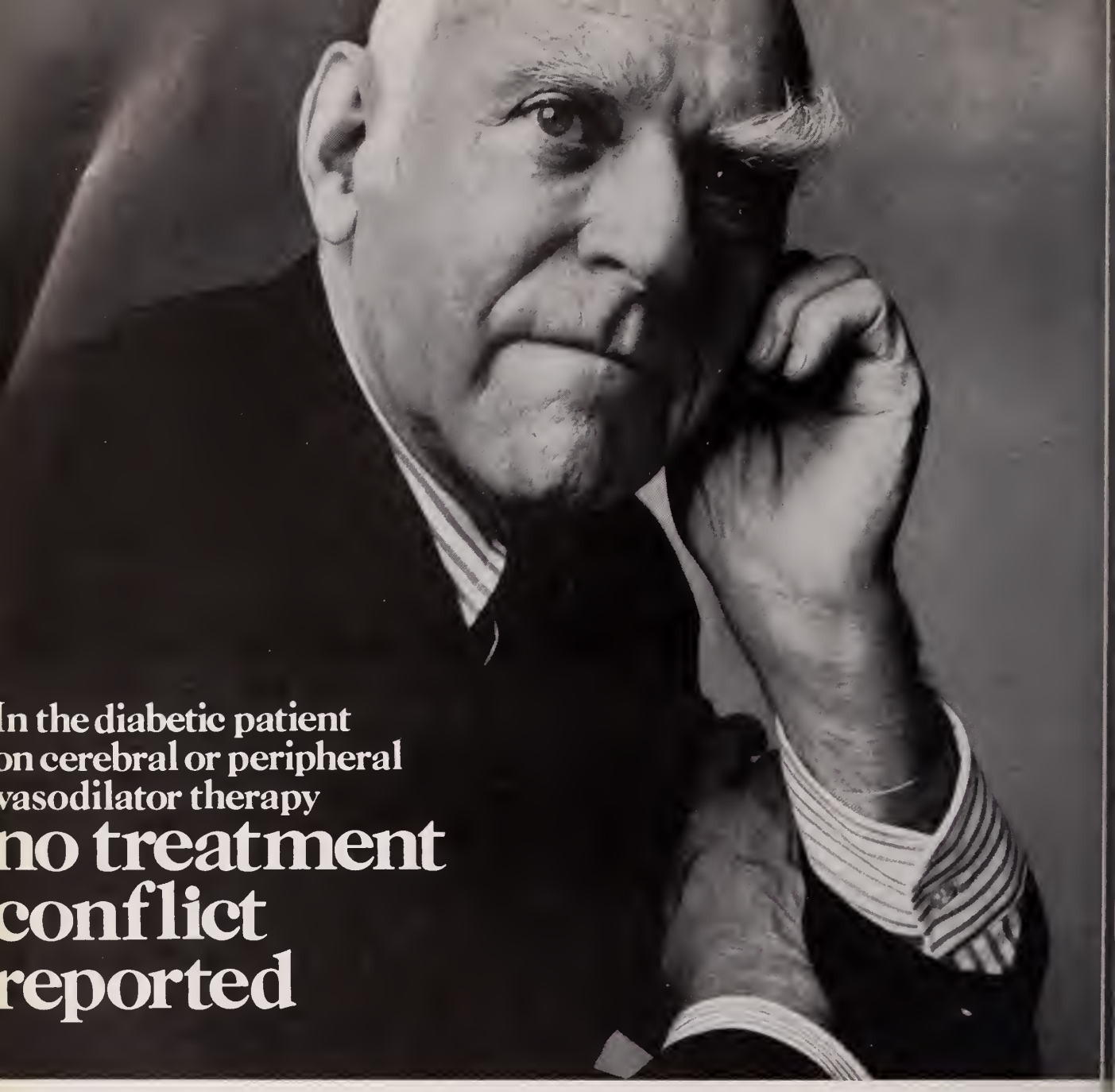
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Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

COMPOSITION: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

DOSAGE AND ADMINISTRATION: 10 to 20 mg. three or four times daily.

CONTRAINDICATIONS AND CAUTIONS: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

ADVERSE REACTIONS: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

SUPPLIED:
Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose
20 mg.—bottles of 100, 500 and Unit Dose

REFERENCE: 1. Samuels, S. S., and Shaftel, H. E.: J. Indiana Med. Ass. *54*:1021-1023 (July) 1961.

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NEW JERSEY DOCTORS' NOTEBOOK

Medical College Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Medical School Research: The Improvement of Health

The detection and prevention of lead poisoning in children has been a long-sought-after, high-priority goal of scientists across the country. One of the objectives of this nation-wide effort has been the development of a simple method for collecting a drop of blood and accurately determining the lead content in such a microspecimen. Parents have been generally reluctant to submit their children to the somewhat frightening experience of an arm venepuncture which until recently had been required to obtain the 3 to 4 milliliters of blood necessary for a lead analysis. Because of such resistance community screenings have failed to include the many children who may be victims of lead poisoning, who are never brought in for testing.

Last summer scientists at the College of Medicine and Dentistry of New Jersey—New Jersey Medical School in Newark, working with the support and cooperation of the New Jersey State and Newark City Departments of Health, developed a simple method for the collection of a drop of blood and the determination of its lead content. The new technic was christened "Paper-in-a-Cup" by its developers, Dr. Morris Joselow, Director of the Laboratory of Environmental Toxicology at the College, and Dr. John Bogden. Both are on the faculty of the Department of Preventive Medicine and Community Health.

With the "Paper-in-a-Cup" method a drop of blood is obtained with a finger stick. Then it is spotted onto filter paper and allowed to dry. Using an ordinary office punch, a standard size disk (¼" diameter) is punched out of the blood-stained area of the paper and placed into a special cup. The cup is then inserted directly into the flame of an atomic absorption spectrophotometer for analysis. With the "Paper-in-a-Cup" technic lead can be determined in a drop of blood at concentrations considerably less than one part per million (ppm).

While developing the new method Dr. Joselow made some findings concerning the lead content of printed matter which were reported by *The Wall Street Journal*. Dr. Joselow pointed out that the black-and white sections of newspapers contained 5 to 20 ppm lead and the colored pages of magazines up to 800 ppm.

According to the United States Public Health Service blood lead concentrations in children of 0.4 ppm or higher indicate excessive absorption. To contract lead poisoning, therefore, a child would have to consume only a small portion of a newspaper or magazine.

The disclosure of Dr. Joselow's findings stimulated public debate over the amount of lead which should be permitted in printer's ink. One result of this debate is a proposed municipal ordinance now under consideration in New York City which would require that there be no lead content whatsoever in inks used in the packaging of food.

To test whether his results were truly representative of the lead content of newspapers and magazines, The National Printing Ink Research Institute has duplicated Dr. Joselow's experiments using atomic absorption spectrophotometry. Results of their tests were generally in agreement with Dr. Joselow's. NPIRI found the lead content of one newspaper to be 25 to 50 ppm and that of an orange-yellow page of a magazine to be 1600 ppm.

The moot point before us now is the extent to which mass circulation periodicals intended for an adult readership but containing high concentrations of lead constitute a public health hazard. It is a question to which we must all address ourselves.

As a medical school tries to fulfill its threefold role of education, service, and research, it is often difficult to create, maintain, and assure a proper balance. Applied research that can be converted into directly applicable service and benefit to patients is popular and easier to justify. All citizens should realize that resources of the College effort and energy and time of the faculty must be used in developing the building blocks in areas of research that may not seem to have any direct effect on patient welfare. Since the College will be faced with limited resources for research in the future, all professionals who are well aware of this need for continued, educated investigation will need to speak out in support of such programs.

Communicable Diseases in New Jersey

	January 1973	January 1972
Aseptic meningitis	7	20
Primary encephalitis		3
Hepatitis: Total	185	502
Infectious	159	409
Serum	26	93
Malaria: Total		14
Military		4
Civilian		10
Meningococcal meningitis	3	2
Mumps	136	314
German measles	100	22
Measles	33	14
Salmonella	87	73
Shigella	63	40

Influenza

The 1972-73 influenza outbreak is much milder than a year ago. During the 1971-72 outbreak, laboratory confirmation of influenza was obtained in 85 individuals. In the present outbreak, 10 individuals have had laboratory confirmation of influenza. The same pattern is mirrored in school absentee data. In the 1971-72 outbreak, 165 schools reported sudden rises of absenteeism compared to 24 schools during this outbreak. Influenza virus was recovered from autopsy specimens of two patients this year compared to nine a year ago.

Intensive surveillance of absenteeism was carried out in 21 industrial plants, with a total work force of about 20,000. Daily absentee data were reported. Several plants reported transient increases of flu-like disease but only three plants reported transient increases of absenteeism.

Influenza isolates this year were confirmed as being England 42/72, the so-called "London flu." Reasons for the mild nature of the outbreak are not entirely clear. This new strain has only minor antigenic differences from the A2/Hong Kong/68 strain, which caused extensive outbreaks in New Jersey in 1968-69 and 1971-72. It may be that people who had previously experienced A2/Hong Kong/68 were partially or completely protected against England 42/72.

Governmental Health Care Programs and the Physician

James E. D. Gardam, M.D., Medical Director
Government Health Programs
Prudential Insurance Company

Consultations and Follow-ups

Many factors have contributed to the phenomenon of the "sharing of responsibility" in the care of patients. Available specialized knowledge and technics often mean a higher level of patient care. However, a consultation is just that. A consultation may include necessary documented follow-up as requested by the attending physician or it may be repeated at a medically necessary interval but it does not mean concurrent care throughout an entire hospital admission.

A medically necessary documented consulta-

tion is a service which is reimbursable by governmental health programs subject to regular, customary, and prevailing factors. Allowances can be made for variables such as specialty, time, and multi-system evaluations or the use of special technics. However, governmental health programs are faced with a common, continuing problem in reimbursement for services by consultants. An attending physician requests a consultation for a difficult problem; the seriousness of the problem is acknowledged by the attending and the consultant; the consultant participates in the care of the patient throughout the entire admission; the attending and the consultant both submit bills for daily care.

Social Security Administration regulations specifically restrict reimbursement for care rendered by two physicians for the same problem at the same time. Furthermore, there is simply no way such "double" claims can be adjudicated to the complete satisfaction of both the attending physician and the consultant. Correspondence after adjudication is remarkable as to the originality of thought concerning the necessity for the concurrent care provided and the fiery intensity of the wrath.

The problem may be solved in one of several ways. The consultant may limit his service to the consultation that was requested and submit a claim for this service. He would report his findings and advice to the attending and the latter would provide continuing care unless medical necessity required the recall of the consultant. On the other hand, a frank discussion between the attending physician and the consultant could lead to the transfer of the case to the care of the consultant. A third alternative is for continuing observation and advice by the consultant to the attending without submission of a claim for daily care—a sort of *noblesse oblige*.

None of the answers is completely satisfactory nor does any of them guarantee appropriate patient care and fiscal satisfaction of both physician parties. However, physicians must recognize the inherent problems of reimbursement in this situation.

Staff Privileges to Chiropractors

Responding to a request from the State Medical Society of Wisconsin, Joseph M. Simonaitis, LL.B., (of the AMA General Counsel's office) has reviewed the right of a hospital to refuse staff privileges to a chiropractor. In abstract, Mr. Simonaitis' reply follows:

Although there are no reported court decisions directly on this point, a hospital, whether private or public, has not only a right but also a duty to refuse to grant staff privileges to a chiropractor. This duty flows from the duty of a hospital, acting upon the recommendation of its medical staff, to protect its patients from unqualified and incompetent practitioners.

The only reported court decision involving a chiropractor's application for hospital staff privileges is *Boos v. Donnell*, 421 P.2d 644 (Okla. 1966). In this case, the governing board of a public hospital rejected the applications of two chiropractors for staff privileges. The chiropractors filed suit to recover damages for the allegedly wrongful rejection of their applications.

Affirming the judgment in favor of the hospital, the Supreme Court of Oklahoma based its decision on an interpretation of several state statutes. It noted that the statutes which established the hospital required the hospital to provide personnel to render medical and surgical services. Other state statutes permitted only physicians and surgeons to practice medicine and surgery. Since chiropractors were not authorized to render medical and surgical services, the court ruled that the hospital had a duty to reject the chiropractors' applications for staff privileges.

The hospital's duty to exclude unqualified practitioners from staff privileges flows from its duty to the general public. The hospital would be answerable to the public for any violation of this duty. This aspect was discussed in *Dayan v. Wood River Township Hospital*, 152 N.E.2d 205 (Ill. 1958) when the court said:

"Liability might well be made to fall upon the hospital if their personnel or equipment were permitted to be subject to control of one lacking in some of the necessary professional skills. Under the circumstances, it is only logical that the institution have the right to safeguard its interest and the public interest as well by exercising discretion in the makeup of the medical staff."

In addition to the aforementioned, it should be noted that most hospital laws require staff privileges be granted only to physicians with an unrestricted license to practice medicine. The Joint Commission on Accreditation of Hospitals also requires that medical staff membership shall be limited to individuals who are fully licensed to practice medicine. If a hospital were to grant staff privileges to a chiropractor, it might lose its accreditation, and it might lose its state license. Thus it is clear that hospitals have a duty to refuse to grant staff privileges to individuals who do not have the same high degree of knowledge, training, and experience as is possessed by doctors of medicine. Hospitals would breach their duty to the public if they granted staff privileges to practitioners of an unscientific form of patient care.

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Serum B_{12} is decreased in:

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- Malabsorption syndrome
- Gastrectomy
- Lesions of the small intestine — ileal resection, blind loop, strictures, diverticulosis, anastomosis, regional enteritis
- Nutritional vitamin deficiency
- Pregnancy
- *Diphyllobothrium latum* infestation

Serum B_{12} is increased in:

- Acute and chronic myelogenous leukemia
- Polycythemia vera
- Myeloid metaplasia
- Liver disease — cirrhosis, hepatitis

Megaloblastic anemias of infancy and pregnancy are frequently the result of folate deficiency. Infants with various pathological conditions are predisposed to folate deficiencies. Rapidly growing tissues and intensive hematopoiesis to meet the steadily expanding blood volume increase the demand for folate. Reserves are low even in healthy infants, especially those fed with heated cow's milk. Any infection may produce a clinical deficiency state.

Although some infants with megaloblastic anemia respond to small doses of Vitamin B_{12}, this therapeutic "cross-effectiveness" has not yet been fully explained and treatment with the "wrong" vitamin is potentially dangerous. In megaloblastic anemias cytological examinations cannot establish the specific etiology. Since diagnosis by therapeutic trials is cumbersome, the investigation of serum levels of both compounds is indicated.

Borderline serum folate levels are difficult to interpret in those patients with little or no hematologic changes. In such cases the measurement of red blood cell (RBC) folate levels (where B_{12} deficiency has been excluded) will provide an accurate quantitative guide to the severity of folate deficiency. When RBC folate is subnormal the indications are a severe depletion of the folate content of both the hemopoietic and liver cells.

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*AVAILABLE ON REQUEST: Ronald I. Goldberg, M.D. & Franklin I. Shuman, M.D. Double-blind study on the treatment of mentally confused patients. Reprinted from the Journal of the American Geriatrics Society, Vol. XII, No. 6, June 1964.

How Informed Is "Informed Consent?"

A patient may consent to an operation, and later start malpractice litigation on the theory that his consent was not "informed"—that is, that the patient had not been informed of the possible risks of the surgery or of alternatives to the operation. In a 1972 decision, the California Supreme Court spelled out some guidelines with respect to "informed consent." These are abstracted below from the December 18, 1972 American Medical Association *News*.

While a physician need not give his patient a course in medicine, the court concluded that "as an integral part of the physician's over-all obligation to the patient, there is a duty of reasonable disclosure of the available choices with respect to proposed therapy and the dangers inherently and potentially involved in each." The court, in essence, held that a physician must tell his patient everything that the patient needs to know to make an intelligent decision.

The ruling (the state court's first on informed consent) stemmed from a malpractice suit by a man who suffered a severed artery in the spleen while undergoing surgery for a duodenal ulcer. As a result of internal bleeding, his spleen was removed; he later developed a gastric ulcer.

The issue centered on the fact that the patient had not been informed before the operation about the risk to his spleen—which the court found occurs in approximately 5 per cent of such operations.

In reaching its decision, the court adopted four postulates: (1) patients are generally persons "unlearned" in medical science; (2) an adult of sound mind has the right to "determine whether to submit to lawful medical treatment;" (3) the patient's consent to treatment "must be an informed consent" to be legally effective; and (4) the patient "has an abject dependence upon and trust in his physician for the information upon which he relies, thus raising an obligation in the physician which transcends arms-length transactions."

The court concluded: "A medical doctor, being the expert, appreciates the risks inherent in the procedure he is prescribing, the risks of a decision not to undergo the treatment, and the probability of a successful outcome of the treatment. But once this information is disclosed, that aspect of the doctor's expert function has been performed. The weighing of these risks against the individual subjective fears and hopes of the patient is not an expert skill. Such evaluation and decision is a non-medical judgment reserved to the patient alone."

Unless the patient's consent historically is implied, as in an emergency, the physician has a duty to obtain the patient's informed consent before performing a procedure.

For all procedures, risks not commonly thought of as being remote must be disclosed.

In a simple procedure (e.g., a common blood sample) risks, which, by common knowledge, have a low degree of incidence need not be discussed.

In a complicated procedure, there is a duty to disclose all risks which could result in "death or serious bodily harm," regardless of the likelihood of such risks and "to explain in lay terms the complications that might occur."

Alternative modes of procedures must be disclosed whenever applicable.

A disclosure by the physician is not required 'beyond that required within the medical community" if the physician "can prove by a preponderance of the evidence that he relied upon facts which would demonstrate to a reasonable man that the disclosure would have so seriously upset the patient that the patient would not have been able dispassionately to weigh the risks of refusing to undergo the recommended treatment."

New Face at HEW

At the helm of the Department of Health, Education, and Welfare will be a new kind of secretary, a man with a reputation as a budget slasher with a zeal for protecting the taxpayer's dollar.

Caspar Weinberger will be the first HEW Secretary schooled in the money world of fiscal prudence. Nicknamed "Cap the Knife," Weinberger's appointment to run the government's social welfare, health, and educational programs perhaps marks the President's most daring cabinet decision. Selection of the 55-year old California lawyer seems to be proof of the President's intention to reverse the tide of heavier federal welfare spending, to channel more money and responsibilities to states and localities, and to steer away from the European welfare state concept.

Weinberger will be moving over to HEW from the post of director of the White House Office of Budget and Management. At HEW he will be thrust into the limelight and in short time will become one of the best-known public figures in the nation. HEW department secretaryship has served most of its occupants well. Outgoing Secretary Elliot Richardson was elevated to the more powerful and prestigious post of Defense Secretary. Abraham Ribicoff, who despaired of presiding over the "can of worms" at HEW found his tenure there no handicap in his race for the Senate.

Weinberger is no stranger to the operations of HEW. At the Budget Office he became well acquainted with the finances of HEW and indeed in tandem with the White House exerted extraordinary fiscal powers over federal health programs. Weinberger's appointment may end a chafing dichotomy between the White House staff and the White House OMB on the one hand and HEW on the other. Weinberger is likely to propose HEW cuts that will enrage some Congressmen, but on the whole the expectation here is that he won't be easily categorized except perhaps as a pragmatist. He has noted, for example, that more than 71 per cent of federal expenditures are for things over which the Administration has no control—such items as interest on the national debt, Medicare, and veterans compensation.

Use of INH in Tuberculosis

A communication from Commissioner Cowan of the State Department of Health calls attention to a recent release from DHEW concerning use of INH in prophylaxis and treatment of tuberculosis and the special surveillance of isoniazid-associated hepatitis and deaths observed in one city. Investigation of this seemingly high incidence of liver dysfunction among 3,170 patients in Baltimore—1.04 per cent—will continue, but DHEW stressed "that there is no need to change in any way the use of isoniazid as a chemotherapeutic agent in the treatment of tuberculosis. However, until further information about the relation of alcohol and isoniazid-associated hepatotoxicity is developed, it is recommended that alcoholics who have been infected with the tubercle bacillus but who do not have abnormal chest films or any other risk factors should not be given preventive treatment. Other than that there are, at present, no indications for a change in the use of isoniazid chemoprophylaxis. We continue to recommend that isoniazid preventive treatment be utilized as indicated, provided patients are adequately supervised."

The New Jersey Department of Health recommends monthly surveillance of each individual receiving INH and suggests that, if there are symptoms of liver dysfunction, appropriate laboratory tests be done at a local hospital equipped for this type of work.

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PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY—Naseer M. Raja, M.D., 1491 East 191st Street, Euclid, Ohio 44117. King Edward (Pakistan) 1965. Board eligible. Group, solo, or partnership. Available June 1973.

GENERAL PRACTICE—Charles Levitan, M.D., 2801 South King Drive, Chicago 60616. Harvard 1972. Group, partnership, solo. Available July 1973.

INTERNAL MEDICINE—Mirza Ashraf, M.D., 950 49th Street, Brooklyn 11219. Pakistan 1967. Board eligible. Subspecialty, cardiology. Group, partnership, solo, or hospital.

Stephen A. Anish, M.D., 33 North Third Avenue, Mount Vernon, New York 10550. George Washington 1968. Board eligible. Group or partnership. Available July 1973.

Shahnawaz S. Jaffer, M.D., 5173 Whetstone Road, Richmond, Virginia 23234. University of Karachi (Pakistan) 1967. Board certified. Subspecialty, gastroenterology. Group, associate, or partnership. Available July 1973

M.I.A. Malik, M.D., 226 Lincoln Avenue, Apt. #17, Newark 07104. King Edward (India) 1962. Board eligible. Subspecialty, pulmonary disease. Group, partnership, or associate. Available August 1973.

James J. Mertz, M.D., 1180 Beacon Street, Brookline, Massachusetts 02146. Harvard 1961. Board eligible. Group or partnership. Available Spring 1973.

Barry J. Weber, M.D., 30 Merle Place, Apt. 3-D, Staten Island, New York 10305. George Washington University 1966. Board certified. Subspecialty, pulmonary disease. Group or partnership. Available July 1973.

Tiac Son Co., M.D., 475 West End Avenue, Apt. 5, North Plainfield 07060. Far Eastern University 1965. Board eligible. Solo or group. Available July 1973.

Edward Jang, M.D., 7 Hegeman Avenue, Apt. 10-D, Brooklyn 11212. National University (Taiwan) 1965. Board eligible. Group or partnership. Available July 1973.

OBSTETRICS-GYNECOLOGY—Mohammad H. Saidi, M.D., 8 Bell Terrace, Belleville 07109. Tehran 1967. Hospital, group, associate. Available July 1973.

Ching-Ho Lin, M.D., 115 Browne Street, Apt. 3, Brookline, Massachusetts 12146. National University (Taiwan) 1965. Board eligible. Associate or partner. Available July 1973.

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Romualdo M. Laygo, M.D., 28-14 Brookhaven Avenue, Far Rockaway, New York 11691. Tomas (Manila). Solo, group, or partnership. Available.

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ANNOUNCEMENTS

Clinical Application of Basic Sciences

The Burlington County Memorial Hospital offers the following programs for March and April, in its series on the clinical application of the basic sciences:

March 8	Thyroid Disease
March 15	Aesthetic Surgery
March 22	Use of Isoenzymes in Diagnosis
March 29	Pre and Postoperative Medical Evaluation
April 5	Management of Leukemia
April 12	Myeloproliferative Disorders

Lectures are supported by grants from Merck, Sharp, and Dohme, Schering Laboratories, and Upjohn Company. Sessions convene at 3:30 p.m. in the Summey Building. AAFP gives one and a half credits per lecture. Additional information may be obtained from the Department of Medical Education, Burlington County Memorial Hospital, Mount Holly.

Radiologic Seminars

Rutgers Medical School (CMDNJ) announces the following program in its series of seminars in radiology:

March 14	Technics of Studying Strokes Ray Brinker, M.D. St. Vincent's Medical Center
April 18	Diagnosis of Renal Masses Howard M. Pollack, M.D. Episcopal Hospital
May 16	Head and Neck Cancer Patrick J. O'Kelley, M.D. St. Peter's General Hospital

Sessions convene at 5 p.m. in Link Room 203 at the Basic Science Building, Rutgers Medical School, New Brunswick—no fee. Further information may be obtained by writing to Charles P. diLiberti, M.D., Raritan Valley Hospital, 257 Greenbrook Road, Green Brook, New Jersey 08812.

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in a series on continuing education in psychiatry:

March 14	Adolescent Psychiatry — Clinical Studies Arnold M. Kallen, M.D.
March 29	Adolescent Psychiatry — Management Arnold M. Kallen, M.D.
April 11	Pharmacotherapy of Mental Disorder George M. Simpson, M.D.
April 26	Pharmacotherapy of Mental Disorder Nathan S. Kline, M.D.

Sessions are held at the hospital, 19 Prospect Street, Summit, and convene promptly at 3 p.m. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education at the hospital.

Graduate Lectures in Surgery

Additional programs in the "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School (CMDNJ) have been listed as follows:

March 19	Acute Aspiratory Distress Watts R. Webb, M.D., Professor of Surgery SUNY, Upstate Medical Center
April 16	Experience in Civilian Disasters Worthington G. Schenk, Jr., M.D. Chairman, Department of Surgery SUNY at Buffalo

The lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking areas "M" at 12th and Bergen Streets. Other lectures will be announced in a later issue. For further information, write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital unit, CMDNJ, 65 Bergen Street, Newark 07107.

Symposium on Learning Disabilities

Announcement is made that on March 19, 1973, a symposium on learning disabilities is scheduled at Rutgers University. This is the project of the group known as "Symposium" and described as "concerned with those children who have good intelligence but who have difficulty learning academic skills by conventional methods." For more information, write to Symposium, Box 26, North Branch, New Jersey 08876.

Peripheral Vascular Disease Seminar

You are invited to attend an afternoon colloquium on peripheral vascular disease on Wednesday, April 4th, at Hamilton Hospital, White Horse-Hamilton Square Road, Trenton. Buffet luncheon will be served at noon. The program begins at 12:30 and runs until about 4:30 p.m. For further details please write to: David J. Felder, D.P.M., Hamilton Hospital, Box "H", Trenton 08690.

Medical Woman of the Year

The annual Woman of the Year meeting of the New Jersey Medical Women's Association will be held at Gene Boyle's Restaurant on Route 3 in Clifton on Wednesday, April 11, at 6:30 p.m. For details, write to Dr. Coralyn R. Flad, E. R. Squibb & Sons, Inc., Georges Road, New Brunswick 08903.

Seminar on Ethics in Biomedical Sciences

The College of Medicine and Dentistry of New Jersey announces a series of four "President's Seminars" on ethics in biomedical sciences. These are made possible by a special grant from Merck and Company of Rahway. Sessions will be held at the Rutgers Medical School, CMDNJ, University Heights Campus, Piscataway, on two Wednesdays in April and two in May. The schedule is as follows:

April 11 (7 p.m.)	Informed Consent Vincent P. Collins, M.D. University of Texas
April 25 (5 p.m.)	Genetic Counseling James R. Sorenson, Ph.D. Princeton University
May 9 (7 p.m.)	Definition of Death Robert M. Veatch, Ph.D. Institute of Society, Ethics, and the Life Sciences
May 30 (5 p.m.)	World Health Organization and Mental Health T. Adeoye Lambo, M.D. World Health Organization

A question and answer period will follow each presentation. Further information may be obtained by writing to the College of Medicine and Dentistry, 100 Bergen Street, Newark 07103.

Sheen Award Nominations Now Open

Do you know of any physician who has made "outstanding contributions to medicine?" If so, you are invited to submit his or her name with a statement of the accomplishments which justify this award. For more details and the appropriate form, write to Sheen Award Committee, American Medical Association, 535 North Dearborn Street, Chicago 60610.

Graduate Program in Internal Medicine

The Department of Medicine at Rutgers Medical School is currently accepting applications for postgraduate study in internal medicine for interns and residents, for the academic year beginning July 1, 1973. (See page 161 of the February 1973 issue of this *Journal* for complete outline of the program.) All inquiries should be directed to Hadley L. Conn, Jr., M.D., Chairman of the Department of Medicine, Rutgers Medical School, P.O. Box 101, Piscataway 08854.

Fulminant Hepatitis Study

Fulminant hepatitis is the most severe manifestation of viral hepatitis. Its mortality rate of 80 per cent has remained unaltered in spite of treatment, such as exchange transfusion or steroids. Administration of hyperimmune hepatitis B antibody (HB Ab) to a small number of patients with fulminant hepatitis B has produced an encouraging reduction in mortality. HB Ab is now available through a national cooperative study. The division of Hepatology and Nutrition of the New Jersey Medical School, College of Medicine and Dentistry of New Jersey at Newark, is the coordinating center of this study in New Jersey, and members of the Division are interested in seeing patients with fulminant hepatitis. Those admitted to the study will receive either albumin or hyperimmune sera in a double-blind fashion. It is anticipated that other agents will become available through this study in the future. For further information, please write to Carroll M. Leevy, M.D., Director, Division of Hepatology and Nutrition, New Jersey Medical School, CMDNJ, 100 Bergen Street, Newark 07103.

MEETINGS OF MEDICAL INTEREST

This listing has been compiled by the Academy of Medicine of New Jersey. For additional information, including exact time of meetings, write to the society or hospital listed.

March

8 **Academy of Medicine of New Jersey and Englewood Hospital**
Englewood Hospital
Englewood
Interesting Chest X-rays

10 **Academy of Medicine of New Jersey**
St. Francis Hospital
Trenton
Drug Abuse Intervention: Physician's Role

13 **Academy of Medicine of New Jersey**
Bloomfield
Dermatologic Therapy

13 **Academy of Medicine of New Jersey**
Paul Kimball Hospital
Lakewood
Proper Use of Blood Gases

14 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

14 **Academy of Medicine of New Jersey**
Helene Fuld Hospital
Trenton
Proper Use of Antibiotics

20 **Academy of Medicine of New Jersey**
South Amboy Memorial Hospital
South Amboy
Hepatitis

20 **Academy of Medicine of New Jersey**
St. Michael's Medical Center
Newark
Thoracic and Cardiovascular Cases

20-21 **Academy of Medicine of New Jersey, CMDNJ, and Academy of Family Practice**
Holiday Inn, Newark Airport
Common Problems in Obstetrics and Gynecology

21 **Academy of Medicine of New Jersey**
Hospital Center at Orange
Radiotherapy of Breast Carcinoma

22 **Academy of Medicine of New Jersey and Radiological Society of New Jersey**
Hospital Center at Orange
Interesting X-rays of the Month

26 **Academy of Medicine of New Jersey**
New Jersey State Hospital, Ancora
Hammonton
Difficult Diabetic Patients

27 **Academy of Medicine of New Jersey and Mercer Hospital**
Mercer Hospital, Trenton
Infectious Disease and Antibiotic Utilization

28 **Academy of Medicine of New Jersey**
Perth Amboy Memorial Hospital
Perth Amboy
Differential Diagnosis of Jaundice

28 **Academy of Medicine of New Jersey**
St. Michael's Medical Center
Newark
Host Deficiencies

28 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Treatment of Shock

28 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Adolescent Psychiatry

April

4 Academy of Medicine of New Jersey
Newark Beth Israel Medical Center
Newark
Modern Treatment of Cancer

4 Academy of Medicine of New Jersey and Hamilton Hospital
Hamilton Hospital
Trenton
Occlusive Peripheral Vascular Disease

5 Academy of Medicine of New Jersey
St. Barnabas Medical Center
Livingston
Soft Contact Lenses

11 Academy of Medicine of New Jersey
B. S. Pollak Hospital
Jersey City
Proper Use of Antibiotics

11 Academy of Medicine of New Jersey
Rutgers Medical School
New Brunswick
Coronary Artery Surgery

11 Fair Oaks Hospital and Academy of Medicine of New Jersey
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorder

17 Academy of Medicine of New Jersey
Martland Hospital
Newark
Thoracic and Cardiovascular Cases

26 Academy of Medicine of New Jersey and the Radiological Society of New Jersey
The Hospital Center at Orange
Interesting X-rays of the Month

26 Fair Oaks Hospital and Academy of Medicine of New Jersey
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorders

30 Academy of Medicine of New Jersey
Ancora Psychiatric Hospital
Hammonton
Hypertension

May

8 Academy of Medicine of New Jersey
Paul Kimball Hospital
Lakewood
Management of Renal Failure

12-15 The Medical Society of New Jersey
Haddon Hall, Atlantic City
Annual Meeting

13 Academy of Medicine of New Jersey
Princeton University
Princeton
Heavy Particles in Radiation Therapy

16 Fair Oaks Hospital and Academy of Medicine of New Jersey
Fair Oaks Hospital
Summit
Existential Psychiatry

23 Academy of Medicine of New Jersey
Morristown Memorial Hospital
Morristown
Diabetic Neuropathy

24 Academy of Medicine of New Jersey and the Radiological Society of New Jersey
The Hospital Center at Orange
Interesting X-rays of the Month

30 Academy of Medicine of New Jersey
Morristown Memorial Hospital
Morristown
Difficult Diabetic Patient

June

6 Academy of Medicine of New Jersey
Rutgers Medical School
New Brunswick
Annual Awards Dinner

20 Academy of Medicine of New Jersey and the Radiological Society of New Jersey
The Hospital Center at Orange
Interesting X-rays of the Month

20 Academy of Medicine of New Jersey
Rutgers University Medical School
New Brunswick
Radiobiology

LETTER TO THE JOURNAL

Are House Calls Outmoded?

January 8, 1973

Dear Doctor Davidson:

In a recent editorial you decry the lack of house calls and urged that physicians go back to making the house call again as an essential part of their service to the public. This is the type of editorial I would expect to find in a lay journal, but I was rather surprised to find that a physician of your background and experience should make such a flat statement urging the impossible in our urban community in this area.

For many years I did both general practice and general internal medicine and made as many as 20 to 25 house calls a day, and know what it is to make house calls. I was not brought up in an era when house calls were not made at all. In my early days, this was simple because we all had neighborhood practices and a house call never took more than ten minutes in transportation time to reach the needy patient. But those days are long since gone. The average house call today takes anywhere from half an hour to an hour in travel time which is a tremendous burden upon the physician and would be financially out of the question if the patient was asked to pay for the time involved in traveling. Since we are constantly being accused of raising the cost of medical care, we cannot afford to place this burden of charge on the patient. Yet, is it truly fair to ask the physician to give so much to travel when he is not recompensed? How much of our time, indeed, are we to be asked to give for nothing? We certainly give enough at the present time with our many utilization review committees, audit committees, etc. So, therefore, there is a logistic and economic reason why house calls are difficult to make at the present time.

But this is not the only problem. In my day, the average physician had office hours for, at most, four hours a day and the rest of the time was free to make house calls. This has changed completely in the years since World War II. Since that time office hours have become longer as patients have become more demanding of the physician's time in the office with the well-sick and the well who want check-ups to prevent disease, as well as the sick patients who demand immediate attention and rightly so. The physician's free time has been markedly constricted so that the amount of time that he has to make house calls is far less than it was before World War II. Whether it was in the Army that the average patient learned that physician care in the office was desirable or not, I have no way of knowing. But, certainly since that time, the demand on office time has increased tremendously and this has been one of the major factors in reducing the time that the physician has for house calls. When you add the increased travel time involved to make the house call, it becomes physically and temporally impossible for the average physician to make the house calls that you seem to think are so easy and so desirable.

Let us look into this question of desirability. The American Heart Association has urged in its "Warning Signs" program that the patient go immediately to the hospital and not waste time calling the physician; or if they do call, the physician has been urged to send the patient immediately to the hospital where the patient can receive immediate care if he should develop an arrhythmia. Certainly the physician who goes to the house to take an electrocardiogram to see whether the patient has or has not had a heart attack knows very little after he has done the electrocardiogram if it is normal. If the symptoms are suggestive of a myocardial infarction, the physician would be considered remiss if he did not send the patient into the hospital for observation at once. It is ridiculous to have a physician go to a house, take an electrocardiogram only to tell the patient to go to the hospital anyhow because this is what he has been urged to do by the leaders in medicine. Therefore, it is much more intelligent to have the patient go

not even to the physician's office but directly to the hospital, where an electrocardiogram can be taken and where the patient can be properly monitored so that if he should develop an arrhythmia this could be immediately noted and action taken to stop the arrhythmia and thus prevent fatal ventricular fibrillation or cardiac arrest.

The day when it was simple to make a diagnosis of pneumonia with a stethoscope and percussion is pretty well gone. Many people have considered the stethoscope to be an obsolete instrument as far as lung disease is concerned and consider the x-ray as the *sine qua non* for a diagnosis. Therefore, if the physician does go to the house to examine the patient he will often be hard put to tell influenza from pneumonia. Only in the office where he can take a chest x-ray or get a blood count can he truly make a diagnosis and therefore treat the patient properly.

The day when physicians should write editorials decrying the lack of house calls is long since gone. The practice of medicine as we saw it before World War II has changed completely not because of the physician's desire, but because of the change in our entire sociologic structure, as well as the demands upon the time of the physician that have developed. Furthermore, our increased knowledge of the practice of medicine from a scientific point of view as well as the art of medicine make it essential that most diagnoses be made either in the office or in the hospital and no longer can we treat the patient properly at home. It is a disservice to the public as well as to the medical profession to call for a house call as the need of medicine today.

There are many instances where a house call would be of great emotional value and support to a family or to a patient, and these are probably still being made in a much greater proportion than you know. Certainly I know that they are being made since these are not the emergency type of calls nor are they the type of calls that demand that the physician come two, three, four, and five times a week. This type of call to support a sick or dying patient or to support a family in a time of emotional stress is still being made by most of the physicians in the area, in spite of the problems that I have raised in the foregoing paragraphs. But, these are few in number and are certainly not advertised as frequently as the lack of house call problem is aired in the public press.

I would suggest that if you are going to write editorials, you write them about the problems that face the physician today with the tremendous demands upon his time placed upon it by legal demands such as HR-1 and the Bennett Amendment, the need for Third Party Utilization studies such as are demanded by Blue Cross, Blue Shield, Medicare, and Medicaid, all of which take tremendous hours out of the physician's working day to comply with the rules of these various bodies. These are the problems that deny the patient the house call (and at times, even adequate office hours). This is where the need for editorials lies, not in the demand for the often valueless and impossible-to-make house calls.

Arthur Bernstein, M.D.

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OBITUARIES

Dr. Antonio Fanelli

One of Middlesex County's senior members, Antonio Fanelli, M.D., died on January 24 at the age of 76. Born in Italy and educated at the University of Naples Medical School, class of 1923, Dr. Fanelli came to Perth Amboy and opened general practice in 1924. He continued to serve the people of his area as family physician until retirement in 1971. He was formerly a member of the staff at Perth Amboy General Hospital. Dr. Fanelli will receive, posthumously, the MSNJ Golden Merit Award, at ceremonies held during the 1973 Annual Meeting in May.

Dr. Samuel Goldman

Samuel Goldman, M.D., who was born in 1899, died on December 21, 1972. Dr. Goldman was a 1924 Hahnemann graduate, who had been chief of obstetrics and gynecology at the West Jersey Hospital in Camden. He had served the people of southern New Jersey all his professional life. Dr. Goldman retired from active private practice in 1965. He was a Fellow of the American College of Surgeons, and for many decades had been active in the affairs of the New Jersey Obstetrical and Gynecological Society. Dr. Goldman was a member of our Camden County Medical Society.

Dr. Frank A. Marshall

Word has just been received of the death on October 3, 1972, of Frank A. Marshall, M.D., a board-certified internist who was 68 years old at the time of his death. He was a Fellow of the American College of Physicians. Dr. Marshall received his M.D. degree at New York University in 1930. He was on the staffs of the North Hudson Hospital in Weehawken and the Christ Hospital in Jersey City.

Dr. Alfred Meneve

On January 19, 1973, at the age of 75, death came to Alfred Meneve, M.D., a well-known obstetrician and gynecologist from Passaic County. Dr. Meneve was a 1920 graduate of Fordham Medical School and had held staff appointments at St. Joseph's Hospital in Patterson. He was a Fellow of the American College of Surgeons and a member of the New Jersey Obstetrical and Gynecological Society. Dr. Meneve was a recipient of the MSNJ Golden Merit Award in 1970.

Dr. Herschel Pettit

Word has just been received of the death, on Christmas Day 1972, of Herschel Pettit, M.D., one of our senior members from Cape May County, and former chief of staff at Shore Memorial Hospital in Somers Point. Born in 1885, Dr. Pettit was graduated from the Medico Chirurgical College of Philadelphia in 1910, and practiced general medicine in Ocean City until retirement in 1966. Before entering medical school, he had taught science in the Bloomfield public schools and maintained his interest in the field of education over the years, having served on the Board of Education of Ocean City during the 1940's and 1950's. In 1942 Dr. Pettit was honored by the town of Ocean City "in recognition of his distinguished service as physician, educator, and civic leader." He was a 1960 laureate of the MSNJ Golden Merit Award.

Dr. Harold A. Tarbell

At the magnificent age of 94, Harold A. Tarbell, M.D., died on December 7, 1972. He was graduated in 1900 from the Medical School at Yale. He was the laureate of one of our Golden Merit awards in 1957. Dr. Tarbell was a pioneer in bacteriology, and served as a bacteriologist for the Newark Health Department from 1905 to 1960. He had had staff affiliations with St. Barnabas, Newark City, and Irvington General Hospitals. He retired from active practice in 1952 at the age of 74 and was an emeritus member of our Essex County Medical Society.

207th Annual Meeting

May 12-15, 1973

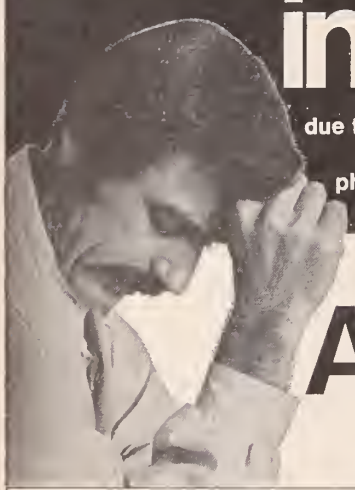
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BOOK REVIEWS

Cancer Diagnosis in Children. L. D. Samuels, M.D. Cleveland, CRC Press, 1972. Pp. 131. Illustrated. ($25)

This volume is essentially about the use of radionuclides in the diagnosis of malignant disease in children. Of the 131 pages, 70 are devoted to nuclear medicine. The other aspects of cancer diagnosis are summarized briefly. The section on nuclear medicine is clear and well written. The many photographs in this section are well reproduced. I cannot say the same for roentgenograms in the preceding chapter.

The best advice in the book is the notion (worth reinforcing) that whenever a child is seen for "minor" illnesses, a relatively complete screening examination should be performed. The author says that this can be done in two to three minutes. On the other hand one could reasonably quibble with the suggestion that pelvic examinations be routinely performed on ninth grade girls.

Albeit early diagnosis of malignancy is important, I wonder how much anxiety we would produce by following this bit of advice. Dr. Samuels suggests: "Parents may well be counseled to examine their children nightly or at least weekly for anything unusual in their appearance." I also have to question the quotation which suggests that every childhood mass "should be regarded as a malignant tumor until its exact nature is determined by histologic examination of the removed tumor." This idea should be tempered by clinical judgment and experience.

This book is overpriced at twenty-five dollars unless you are particularly interested in nuclear medicine. However, I enjoyed reading the book and learned a great deal from it.

S. J. Cohen, M.D.

Australian Antigen and Hepatitis. B. S. Blumberg, A. I. Sutnick, W. T. London, and I. Millman. Cleveland, CRC Press, 1972. Pp. 74. Illustrated. ($12.50)

This monograph is a comprehensive review of the literature on Australian antigen from 1963 to July, 1970. The timeliness is obvious in view of the numerous writings and the unclear nature and status of this major biochemical breakthrough in the study of hepatitis.

The book is in the form of a systematic presentation and discussion of Au(1) supported by a precise listing of 147 references. Also, the authors furnish a supplementary bibliography of almost 300 more items, unused in the present text, which will be incorporated in a future updated edition.

The authors, all from the Institute for Cancer Research in Philadelphia, are pioneers in the study of Australian antigen. They have succeeded admirably in presenting a clear and authoritative review of this complicated subject plus a massive bibliography.

The only one of its kind to my knowledge, this book is a valuable reference for many different groups of scientists: the clinician who manages not only hepatitis but Australian antigen-related diseases: Down's syndrome, leukemia, hemodialysis patients, and so on; the epidemiologists; those who direct blood banks and bioanalytical laboratories; the biologicals industry; and, finally, the researchers in the field.

Dominic A. Mauriello, M.D.

A Synopsis of Contemporary Psychiatry, Edition 4. George A. Ulett, M.D. and D. Wells Goodrich, M.D. St. Louis, Mosby, 1972. Pp. 340 ($9.50)

We have here a compact review, presenting a surprising amount of material in a short space. The success of the three earlier editions has established the values of this volume. It will provide a handy review for the busy physician, and is useful to nurses, psychologists, medical students, and all workers in the mental health field generally. It includes material on history taking, nomenclature, diagnostic procedures, examination technics, psychiatric emergencies, role of community installations, and treatment. The "therapeutic measures" section includes extremely useful and practical guides to psychotropic and neuroleptic drugs with compact information on dosage, trade names, and routes of administration—all in all, a valuable and useful text.

Henry A. Davidson, M.D.

Confessions of a Gynecologist. Anonymous M.D. New York, Doubleday, 1972. Pp. 319. ($7.95)

An old axiom says that you can't tell a book by its cover. You can't tell a book by its title either. Despite the somewhat sensational sounding title, this is actually a well-written narrative by a knowledgeable gynecologist. Sixteen chapters detail the problems that a gynecologist faces in his everyday practice. Marital strife, labor, abortion, infertility, and the menopause are handled with an understanding of human nature. The explanations and advice given are such that most gynecologists would accept readily one minor disagreement with the author is his statement that he can tell the sex of the unborn baby by the fetal heart rate. Most of us can't do this. The most enjoyable section of the book is the next-to-last chapter in which the doctor describes his early struggle to become a physician, overcoming both economic and health problems. Interest in the text would have been heightened if we had known "something of the man" a little earlier in the narrative.

The real defect however is that none of the rest of us thought of the idea sooner.

Gerard F. Hansen, M.D.

Cardiovascular Drug Manual. Wm. G. Abrams, M.D., Editor. East Orange, New Jersey, Regional Medical Program, 1972. Pp. 99. (No charge)

This very handy little item fits neatly in your coat pocket, car, or doctor bag as well as in your bookcase and ought to be in all those places. Its ten short chapters cover treatment in the major categories of cardiovascular diseases, blood pressure problems, arrhythmia, shock, and so on. The information is well distilled and absolutely authoritative.

Obviously, much had to be excluded but there is not one wasted word. It should be read and kept close-by for emergencies. (Its red cover resembles a fire alarm —an apt coincidence).

Copies *should* be obtained (free) from Dr. A. A. Florin, M.D., M.P.H., Coordinator, N.J. Regional Medical Program, 7 Glenwood Avenue, East Orange 07017.

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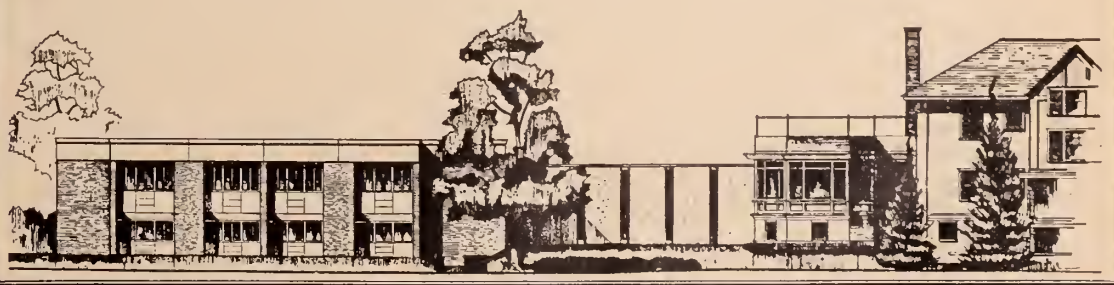
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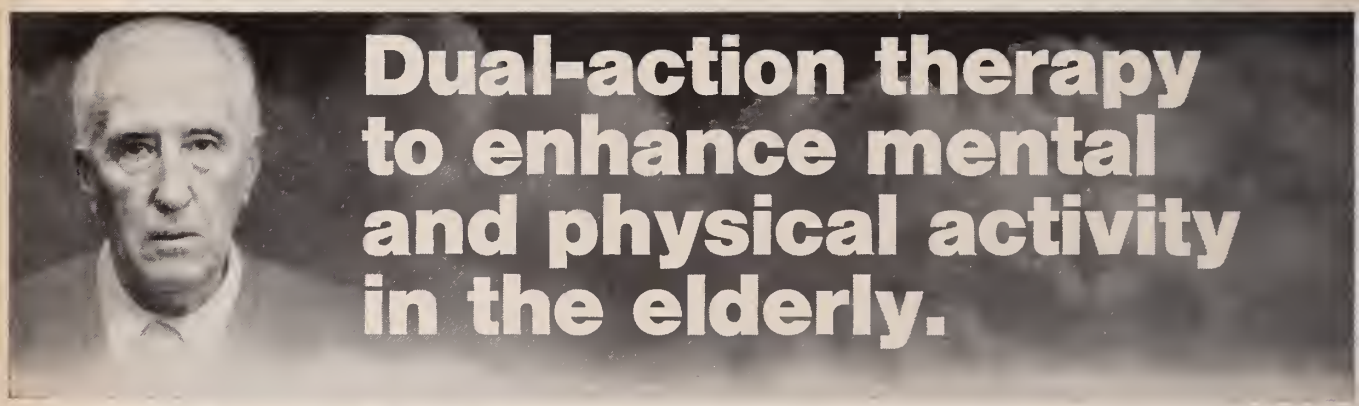
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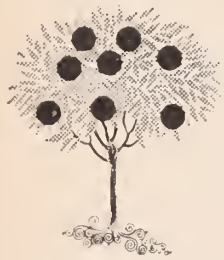
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Remember that Tandearil is not a simple analgesic. It should not be used on patients responding to routine therapy. Before using, please read the prescribing information. It's summarized below.

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Important Note: This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Patients should discontinue the drug and report immediately any sign of: fever, sore throat, oral lesions (symptoms of blood dyscrasia); dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.

Indications: Acute gouty arthritis, rheumatoid arthritis, rheumatoid spondylitis.

Contraindications: Children 14 years or less; senile patients; history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia; history or presence of drug allergy; blood dyscrasias; renal, hepatic or cardiac dysfunction; hypertension; thyroid disease; systemic edema; stomatitis and salivary gland enlargement due to the drug; polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.

Warnings: Age, weight, dosage, duration of therapy, existence of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpredictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

Precautions: The following should be accomplished at regular intervals: Careful detailed history for disease being treated and detection of earliest signs of adverse reactions; complete physical examination including check of patient's weight; complete weekly (especially for the aging) or an every two week blood check; pertinent laboratory studies. Caution patients about particlpating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

Adverse Reactions: This is a potent drug; its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy; CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia; ulcerative stomatitis, salivary gland enlargement.

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For complete details, including dosage, please see full prescribing information.

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Over multiple nights of therapy, no waning of drug effectiveness was noted. There was consequently no need to increase dosage during the study periods. It stands to reason that the fewer repeat or incremental doses needed to sustain sleep, the lower the total cost of the sleep medication. Consistent effectiveness is the measure of Dalmane (flurazepam HCl) economy.

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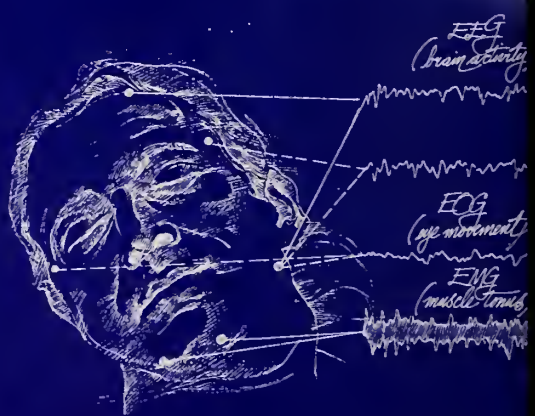
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efore prescribing Dalmane (flurazepam Cl), please consult Complete Product nformation, a summary of which follows:

ndications: Effective in all types of insomnia characterized by difficulty in falling sleep, frequent nocturnal awakenings nd/or early morning awakening; in atients with recurring insomnia or poor leeping habits; and in acute or chronic edical situations requiring restful eep. Since insomnia is often transient nd intermittent, prolonged administraon is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychologic dependence have not been reported on recommended doses, use caution in administering to addiction-prone individu or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and, or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effect Employ usual precautions in patients who are severely depressed, or with



nt depression or suicidal tendencies.
odic blood counts and liver and kid-
function tests are advised during
eated therapy. Observe usual precau-
s in presence of impaired renal or
atic function.

erse Reactions: Dizziness, drowsi-
s, lightheadedness, staggering, ataxia
falling have occurred, particularly
derly or debilitated patients. Severe
ation, lethargy, disorientation and
a, probably indicative of drug intoler-
e or overdosage, have been reported.

Also reported were headache, heart-
burn, upset stomach, nausea, vomiting,
diarrhea, constipation, GI pain, nervous-
ness, talkativeness, apprehension, irri-
tability, weakness, palpitations, chest
pains, body and joint pains and GU com-
plaints. There have also been rare occur-
rences of sweating, flushes, difficulty in
focusing, blurred vision, burning eyes,
faintness, hypotension, shortness of
breath, pruritus, skin rash, dry mouth,
bitter taste, excessive salivation, anorexia,
euphoria, depression, slurred speech,
confusion, restlessness, hallucinations,
and elevated SGOT, SGPT, total and direct
bilirubins and alkaline phosphatase.
Paradoxical reactions, *e.g.*, excitement,
stimulation and hyperactivity, have also
been reported in rare instances.

Dosage: Individualize for maximum bene-
ficial effect. *Adults:* 30 mg usual dosage;
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Elderly or debilitated patients: 15 mg
initially until response is determined.

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EDITORIALS

Needling the Profession

The recent proliferative growth in seminars offering instruction in acupuncture should be of concern to each member of the medical profession. For improper application of the modality could relegate what may be an effective therapeutic technic to the category of just another tool of quackery.

Many recent graduates of the abbreviated courses have been identified as chiropractors, naturopaths, or others espousing similar philosophies. Since the statutes of many states prohibit puncture of the skin by such practitioners, it is not surprising that many of them are said to use the "essence of acupuncture" by applying finger pressure as part of their treatment programs. Exactly how "finger pressure acupuncture" differs from the usual chiropractic method is not entirely clear.

Early in 1972, the American Society of Anesthesiologists exhibited grave concern ". . . over premature application of acupuncture to American patients for relief of pain during surgery . . ." The ASA statement was based on apparent current departure from traditional scientific evaluation of any therapeutic procedure before it is accepted widely in medical practice.

Several weeks later, the New York State Board for Medicine adopted the position that ". . . acupuncture is not an accepted medical procedure in New York, (that) acupuncture involving the human body (is) an experimental procedure which falls within the practice of medicine, can be performed lawfully only by or under the direct supervision of a (New York) licensed physician and in an institution appropriate for human research . . ."

In early August (1972) California enacted a law permitting acupuncture and other forms of Chinese medicine by an unlicensed person, but only in an approved medical school. Sponsored by the California Medical Association, the act stipulated that the procedure must be carried out only under the direct supervision of a licensed physician.

Medical associations and licensing boards in other states have assumed variations from positions found in New York and California. The variety of resolutions and rulings range from ban it to try it (you'll like it?). The Food and Drug Administration has detained a number of shipments of acupuncture needles and electric stimulators from entering the United States. Such action has been based on FDA's responsibility to determine that such devices are in compliance with the law (labeling, safety, etc.) prior to condoning their import. FDA generally requires valid scientific research on the device to resolve such a question.

Thus, the FDA recently called a conference in Washington, inviting representatives of the American Medical Association, the American Society of Anesthesiologists, the National Institutes of Health, the Federation of State Medical Boards, and medical licensing officials from New York and California, as well as physicians considered acupuncture authorities from the Albert Einstein College of Medicine and the University of California Medical School.

That day-long session produced general agreement that acupuncture needles and stimulators imported into the United States (as well as those transported in interstate commerce) should be labeled as experimental devices, limited to investigative use by licensed medical or dental practitioners. The consensus of those in attendance was that acupuncture does, indeed, fall within the practice of medicine and/or dentistry. Recognition was given the limited but significant number of qualified anesthesiologists, psychiatrists, and medical hypnotherapists who have been performing acupuncture as part of their regular practice. Personal observations on their experience with the modality could

be meaningful when integrated with the body of information expected to come from the structured research projects.

The unfortunate association of the technic with "irregular" cultists makes it urgent that medical associations and boards of medical examiners take *and state* their positions on acupuncture soon. In its public accountability for the health of the people in this country, the medical profession cannot condone continued improper application of acupuncture. The potential hazards in its misuse cover the full gamut of cultistic practice known to be "dangerous to your health."

Therefore, medical associations and medical licensing authorities are urged to develop resolutions regarding acupuncture, update operating rules, request legislative action, seek attorney general rulings or whatever is needed to follow the trail blazed by physicians in New York and California. The *point* of this extended comment is to *needle* the medical profession—particularly medical associations and boards of medical examiners—into taking a position on acupuncture before the technic (or its "essence") becomes further entrenched as another tool of health quackery.

Ray L. Casterline, M.D.

From the November 1972 issue of Federation Bulletin, published by the Federation of State Medical Boards. Dr. Casterline is editor of the publication.

The Assault on Confidentiality

It may be that in this modern world, confidentiality is a dead duck. A Senate committee has asked the California Medical Association for its complete file of the findings, including raw data, that accrued when they inspected hospitals. The committee thought that these data were necessary in developing legislation on health insurance. The Department of Health, Education, and Welfare wants the USA to accept a treaty which would give an international body control over "dangerous and abusable drugs," and our country would be bound by the decision of two-thirds of the signatory nations about classifying drugs, permitting the transportation of such medications, and discouraging their use in research. Our own state wants a registry of drug addicts to include names and addresses of the habituees, a practice that would obviously discourage addicts from seeking treatment. Information about epileptics must be reported to state authorities. And so it goes.

It is difficult to say "no" to requests like these which have manifest public health implications. But the more we break into confidentiality of doctor-patient relationships, even with the best of motives, the wider we open the door to a breach of privacy. Perhaps in a computerized nation, all this is inevitable, but it would be nice to think of the practice of medicine as one last bastion of individuality.

Journey's End for Opium Alkaloids?

When your editor was a medical student, a popular thought-stimulating question was: "Suppose you were a physician on an expedition to an isolated island. You could take only ten drugs with you. Which ten would you take?" While there was little agreement about the entire list, morphine was always rated near the top. This was, as it were, the one indispensable drug. It relieved pain as nothing else did, and at times the swift relief of pain became the doctor's number one job.

During the last three or four decades, the priority of the opium alkaloids has been questioned. More effective and swifter-acting anodynes have become available. This has led to the questions: Are opium alkaloids really necessary? Have not the pharmacologists developed better and less habit-forming medications? If not, this would appear to be a direct challenge to this group of creative biochemists. Has not the time come when we can remove these drugs from our armament?

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Vasodilan is not incompatible with any of these drugs—no treatment conflict has been reported. And, unlike other vasodilators, Vasodilan has not been reported to affect carbohydrate metabolism, liver function, or intraocular pressure—or to complicate treatment of diabetes, hypertension, peptic ulcer, glaucoma, or liver disease.

In fact, there are no known contraindications to the use of Vasodilan in recommended oral doses, other than that it should not be given in the presence of frank arterial bleeding or immediately postpartum.

1 Gaither, M. M., et al.: Geriatrics *25*:134-148 (May) 1970.

Indications: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, the FDA has classified the indications as follows:

Possibly Effective:

1. For the relief of symptoms associated with cerebral vascular insufficiency.
2. In peripheral vascular disease of arteriosclerosis obliterans, thromboangiitis obliterans (Buerger's Disease) and Raynaud's disease.
3. Threatened abortion.

Final classification of the less-than-effective indications requires further investigation.

Composition: Vasodilan tablets, isoxsuprine HCl, 10 mg. and 20 mg.

Dosage and Administration: 10 to 20 mg. three or four times daily.

Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding.

Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose.

Supplied: Tablets, 10 mg.—bottles of 100, 1000, 5000 and Unit Dose; 20 mg.—bottles of 100, 500 and Unit Dose.

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207th ANNUAL MEETING
The Medical Society of New Jersey

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Marion R. Walton
Convention Manager

May 12-15, 1973
Chalfonte-Haddon Hall
Atlantic City

1973 Annual Meeting

RESUMÉ OF EVENTS

Saturday through Tuesday
May 12 to 15, 1973

Chalfonte-Haddon Hall
Atlantic City

Registration
Saturday, May 12 from 9:30 a.m. to 4:30 p.m.
Sunday, May 13 from 9 a.m. to 4:30 p.m.
Monday, May 14 from 9 a.m. to 4:30 p.m.
Tuesday, May 15 from 9 a.m. to 12 noon

House of Delegates
First Session—Saturday, May 12 at 2 p.m.
Second Session—Sunday, May 13 at 3:30 p.m.
Third Session (Part I)—Monday, May 14 at 3 p.m.
Third Session (Part II)—Tuesday, May 15 at 9 a.m.

Motion Picture Theater
Saturday, May 12 at 2 p.m. Sunday and Monday, May 13 and 14 at 10 a.m. and 2 p.m. Program arranged and presented through the cooperation of Roche Laboratories, Division of Hoffmann-LaRoche, Inc., Nutley, New Jersey.

Reference Committees
Saturday, May 12 at 3 p.m.—
Reference Committee on Const. and Bylaws
Reference Committees "A", "B", "D", "G"
Sunday, May 13 at 10 a.m.—
Reference Committees "C", "E", "F", "H"

Convention Reception—Buffet and Dancing
Saturday, May 12 at 7:30 p.m. Invitation is extended to members, official guests, wives of members and guests, and Auxiliary members. (Tickets at Registration Desk—$15 per person).

Scientific Program: Sections
Sunday, May 13 at 9 a.m.—
Ophthalmology
Sunday, May 13 at 9:30 a.m.—
Allergy, Dermatology
Cardiovascular Diseases
Sunday, May 13 at 1 p.m—
Anesthesiology
Neurology and Neurosurgery
Psychiatry
Monday, May 14 at 9 a.m.
Chest Diseases, General Practice, Medicine
Orthopedic Surgery
Surgery
Monday, May 14 at 9:30 a.m.
Obstetrics and Gynecology, Pediatrics
Rheumatism
Monday, May 14 at 10 a.m.
Clinical Pathology
Monday, May 14 at 1 p.m.
Gastroenterology and Proctology, General Practice, Medicine
Obstetrics and Gynecology, Radiology, Urology
Otolaryngology, Plastic and Reconstructive Surgery

General Session
Sunday, May 13 at 4 p.m.—President's Farewell Address; Inauguration of Incoming President; Address of Incoming President

Golden Merit Award
Sunday, May 13 at 4:30 p.m. Honored will be those members of MSNJ who have held the degree of Doctor of Medicine for fifty years. Reception immediately following ceremony.

Reception for President-Elect Boylan
Sunday, May 13 at 6:30 p.m. Invitation is extended to members, official guests, wives of members and guests, and Auxiliary members. (Admission by badge)

Dinner Dance
Monday, May 14 at 8 p.m. Invitation is extended to members, official guests, wives of members and guests, and Auxiliary members. (Tickets at Registration Desk—$14).

Miscellaneous
Saturday, May 12 at 10:30 a.m.—Meeting, New Jersey Committee on Trauma; 12 noon—Luncheon; 1 p.m.—Annual Trauma Oration

Saturday, May 12 at 12:30 p.m.—Luncheon Meeting, New Jersey Medical Women's Association

Saturday, May 12 at 7:30 p.m.—Officers' Dinner (By invitation only)

Sunday, May 13 at 12:30 p.m.—Luncheon Meeting: New Jersey State Society of Anesthesiologists

Sunday, May 13 at 12:30 p.m.—Luncheon Meetings: New Jersey Academy of Ophthalmology and Otolaryngology

Sunday, May 13 at 1 p.m.—Luncheon Meeting: New Jersey Chapter, American College of Emergency Physicians

Sunday, May 13 at 4:30 p.m.—Meeting: Society for the Relief of Widows and Orphans of Medical Men of New Jersey

Sunday, May 13 at 8 p.m.—Inaugural Dinner (By invitation only)

Monday, May 14 at 12 noon—Luncheon Meetings: New Jersey Chapter, American College of Chest Physicians
New Jersey Orthopaedic Society
New Jersey Chapter, American Academy of Pediatrics

Monday, May 14 at 12:30 p.m.—Luncheon Meeting: New Jersey Society of Pathologists

Monday, May 14 at 5:30 p.m.—Alumni Reception Jefferson Medical College

1973 Annual Meeting

DAILY SCHEDULE

Saturday through Tuesday
May 12 to 15, 1973

Chalfonte-Haddon Hall
Atlantic City

Friday, May 11, 1973

4:00 p.m.—Board of Trustees—Bakewell Room, 1st Floor, H H

Saturday, May 12, 1973

9:30 a.m.—Registration Opens — Exhibit Hall, Lobby Floor, H H

10:30 a.m.—Meeting: New Jersey Committee on Trauma, American College of Surgeons—Roberts Room, Lobby Floor, Chalfonte

12 noon—Exhibits Open—Exhiblt Hall, Lobby Floor, H H

12 noon—Luncheon—New Jersey Committee on Trauma, American College of Surgeons—Blue Room, Lobby Floor, Chalfonte

12:30 p.m.—Luncheon Meeting—New Jersey Medical Women's Association—Derbyshire Room, 1st Floor, H H

1:00 p.m.—Annual Trauma Oration—New Jersey Committee on Trauma, American College of Surgeons—Roberts Room, Lobby Floor, Chalfonte

2:00 p.m.—House of Delegates—Windsor Room, Lobby Floor, H H

2:00 p.m.—Motion Picture Theater — Library, Lobby Floor, H H

3:00 p.m.—Reference Committees:
Constitution and Bylaws—Mandarin Room, Tower Floor, H H
"A"—Rutland Room, 1st Floor, H H
"B"—Tower Room, Tower Floor, H H
"D"—Solarium, Lounge Floor, H H
"G"—Bakewell Room, 1st Floor, H H

5:00 p.m.—Nominating Committee — Bakewell Room, 1st Floor, H H

7:30 p.m.—Officers' Dinner—West Room, Tower Floor, H H
(By invitation only)

7:30 p.m.—Convention Reception — Cocktails-Buffet-Dancing—Garden and Vernon Rooms, Lobby Floor, H H
Invitation is extended to members, official guests, their wives, and Auxiliary members (tickets at Registration Desk—$15 per person)

Sunday, May 13, 1973

9:00 a.m.—Registration and Exhibits Open — Exhibit Hall, Lobby Floor, H H

9:00 a.m.—Scientific Session:
Ophthalmology—Bakewell Room, 1st Floor, H H

9:30 a.m.—Scientific Sessions:
Allergy, Dermatology — Derbyshire Room, 1st Floor, H H
Cardiovascular Diseases — Garden Room, Lounge Floor, H H

10:00 a.m.—Motion Picture Theater — Library, Lobby Floor, H H

10:00 a.m.—Reference Committees:
"C"—Mandarin Room, Tower Floor, H H
"E"—West Room, Tower Floor, H H
"F"—Pavilion, 15th Floor, H H
"H"—Tower Room, Tower Floor, H H

12 noon—Luncheon-Meeting:
New Jersey State Society of Anesthesiologists—Solarium, Lounge Floor, H H

12:30 p.m.—Luncheon-Meeting:
New Jersey Academy of Ophthalmology and Otolaryngology—Roberts Room, Lobby Floor, Chalfonte

1:00 p.m.—Luncheon-Meeting:
New Jersey Chapter, American College of Emergency Physicians—Rutland Room, 1st Floor, H H

1:00 p.m.—Scientific Sessions:
Anesthesiology—Solarium, Lounge Floor, H H
Neurology and Neurosurgery—Garden Room, Lounge Floor, H H
Psychiatry—Derbyshire Room—1st Floor, H H

2:00 p.m.—Motion Picture Theater — Library, Lobby Floor, H H

3:30 p.m.—House of Delegates (election) — Windsor Room, Lobby Floor, H H

4:00 p.m.—General Session: Addresses by President D'Elia and President-Elect Boylan—Windsor Room, Lobby Floor, H H

4:30 p.m.—Golden Merit Award Ceremony—Windsor Room, Lobby Floor, H H
Reception for Award Recipients and Their Families — Derbyshire Room, 1st Floor, H H

4:30 p.m.—Meeting:
Society for the Relief of Widows and Orphans of Medical Men of New Jersey—Bakewell Room, 1st Floor, H H

6:30 p.m.—Inaugural Reception Honoring President-Elect Boylan — Pennsylvania Room, Lounge Floor, H H
Invitation is extended to members, officials guests, their wives, and Auxiliary members—admission by badge

8:00 p.m.—Inaugural Dinner—Vernon Room, Lounge Floor, H H
(By invitation only)

Monday, May 14, 1973

9:00 a.m.—Registration and Exhibits Open—
Exhibit Hall, Lobby Floor, H H

9:00 a.m.—Scientific Sessions:
Chest Diseases, General Practice, Medicine — Solarium, Lounge Floor, H H
Orthopedic Surgery—Vernon Room, Lounge Floor, H H
Surgery—Rutland Room, 1st Floor, H H

9:30 a.m.—Scientific Sessions:
Obstetrics and Gynecology, Pediatrics — Garden Room, Lounge Floor, H H
Rheumatism — Pennsylvania Room III, Lounge Floor, H H

10:00 a.m.—Scientific Session:
Clinical Pathology—Bakewell Room, 1st Floor, H H

10:00 a.m.—Motion Picture Theater — Library, Lobby Floor, H H

12 noon—Luncheon-Meetings.
New Jersey Chapter, American College of Chest Physicians—Roberts Room, Lobby Floor, Chalfonte
New Jersey Orthopaedic Society — Mandarin Room, Tower Floor, H H
New Jersey Chapter, American Academy of Pediatrics—Peacock Lounge, Lounge Floor, H H

12:30 p.m.—Luncheon Meeting:
New Jersey Society of Pathologists—Derbyshire Room, 1st Floor, H H

1:00 p.m.—Scientific Sessions:
Gastroenterology and Proctology, General Practice, Medicine — Solarium, Lounge Floor, H H
Obstetrics and Gynecology, Radiology, Urology — Garden Room, Lounge Floor, H H
Otolaryngology, Plastic and Reconstructive Surgery — Vernon Room, Lounge Floor, H H

2:00 p.m.—Motion Picture Theatre — Library, Lobby Floor, H H

3:00 p.m.—House of Delegates—Windsor Room, Lobby Floor, H H

5:00 p.m.—Exhibits Close

5:30 p.m.—Alumni Reception
Jefferson Medical College—Suite in Haddon Hall

8:00 p.m.—Annual Dinner-Dance Honoring President and Mrs. D'Elia—Pennsylvania Room, Lounge Floor, H H
Invitation is extended to members, official gusts, their wives, and Auxiliary members — tickets at Registration Desk—$14 per person

Tuesday, May 15, 1973

9:00 a.m.—Registration Opens—Lobby Floor, H H

9:00 a.m.—House of Delegates—Windsor Room, Lobby Floor, H H

12:00 p.m.—Registration Closes

8:00 p.m.—Board of Trustees—Bakewell Room, 1st Floor, H H

New Jersey Medical Women's Association

Saturday, May 12, 1973 — 12:30 p.m.

Derbyshire Room, First Floor, Haddon Hall

Luncheon-Meeting

"New Opportunities in the Health Profession"

Stanley S. Bergen, Jr., M.D., President, College of Medicine and Dentistry of New Jersey, Newark

Reservations: Satty Gill Keswani, M.D.
176 West Mt. Pleasant Ave.
Livingston 07039

Annual Trauma Oration

Saturday, May 12, 1973 — 1:00 p.m.

Roberts Room, Chalfonte

What Is a Burn and How Can It Be Prevented and Treated?

George F. Crickelair, M.D., Clinical Professor of Surgery (Plastic), Columbia University College of Physicians and Surgeons, New York.

The New Jersey Committee on Trauma of the American College of Surgeons will present its Annual Trauma Oration on Saturday, May 12, during the 207th Annual Meeting of The Medical Society of New Jersey. Preceding the lecture, there will be a meeting of the Committee at 10:30 a.m. in the Roberts Room and a luncheon at 12 noon in the Blue Room, Chalfonte.

(All members of The Medical Society of New Jersey and other physicians are invited to attend.)

Motion Picture Theater

Saturday, May 12, (afternoon)	Library
Saturday, May 13, (morning and afternoon)	Lobby Floor
Monday, May 14, (morning and afternoon)	Haddon Hall

Arranged and Presented Through

Roche Laboratories
Division of Hoffmann-LaRoche, Inc., Nutley

10:00 a.m. and 2:00 p.m.—The Nurse, The Physician, and The Law
10:35 a.m. and 2:35 p.m.—Stress and the Adaptation Syndrome
11:15 a.m. and 3:15 p.m.—Diagnosis and Treatment of Sedative Overdosage
11:50 a.m.—Frontiers of Psychiatry on Camera Exploring the Treatment of Alcoholism
3:50 p.m.—Physical Examination of the Newborn

1973 Annual Meeting

DINNER-DANCE

Monday, May 14 — 8:00 p.m.

Honoring

President William J. D'Elia

Toastmaster

Louis F. Albright, M.D.

Welcome

Mrs. Charles Gandek, President
Woman's Auxiliary

Introductions

Mrs. Louis Abbamonte, President-Elect
Woman's Auxiliary
Matthew E. Boylan, M.D., President-Elect
The Medical Society of New Jersey

Presentations

Fellow's Key
To: William J. D'Elia, M.D., President
By: E. Vernon Davis, M.D., Immediate Past-President

Fellowette's Pin
To: Mrs. Charles Gandek
President Woman's Auxiliary
By: William J. D'Elia M.D., President
The Medical Society of New Jersey

Guest Speaker

Music and Dancing

Martin King Orchestra Associates

1973 Annual Meeting

CONVENTION RECEPTION

Saturday, May 12 — 7:30 p.m.

Cocktails

Buffet

Dancing

Martin King Associates Orchestra

Invitation is extended to members, official guests, their wives, and auxiliary members (tickets at Registration Desk).

1973 Annual Meeting

GOLDEN MERIT AWARDS

Sunday, May 13 — 4:30 p.m.

Presiding
William J. D'Elia, M.D., President

Master of Ceremonies
Howard D. Slobodien, M.D., Chairman, Council on Public Relations

Marshals
Presidents of Component Societies whose members are receiving awards

The Golden Merit Award, established in 1957, is conferred upon every member of The Medical Society of New Jersey who has held the degree of Doctor of Medicine for fifty years.

Recipients For 1973

County	Member
Atlantic	Roland T. deHellebranth, M.D.
	Ronald C. Moore, M.D.
	Hilton S. Read, M.D.
	Walter B. Stewart, M.D.
Bergen	Henry D'Agostin, M.D.
	István A. Gáspár, M.D.
	Spencer T. Snedecor, M.D.
	Harry B. Wolowitz, M.D.
Camden	Ralph K. Bush, M.D.
	Walter A. Crist, M.D.
	Joseph W. Crowley, M.D.
	George B. German, M.D.
	Russell S. Magee, M.D.
	Lester R. Wilson, M.D.
Cape May	Arthur Hirsch, M.D.
Essex	Edgar P. Cardwell, M.D.
	William Cooperman, M.D.
	Olindo del Guercio, M.D.
	William B. Ein, M.D.
	Patrick D. Gerard, M.D.
	William H. Glass, M.D.
	Harry Halprin, M.D.
	Herbert M. Ill, M.D.
	Joseph F. Iuliani, M.D.
	Edward C. Klein, Jr., M.D.
	William Kruger, M.D.
	Philip Levine, M.D.
	Robert M. Levinson, M.D.
	Charles W. Scranton, M.D.
	Henry A. Toczek, M.D.
	Margaret M. Wurts, M.D.
Hudson	Eugene P. Babóczky, M.D.
	John H. Jentz, M.D.
	Arthur M. Kraut, M.D.
	Louis Meltsner, M.D.
	David G. Morris, M.D.
	Michael Pacicco, M.D.
Mercer	Ralph J. Belford, M.D.
	Benjamin M. Goldberg, M.D.
	Willard G. Rainey, M.D.
Middlesex	*Antonio Fanelli, M.D.
	William C. Wilentz, M.D.
Morris	Robert L. Gilbertson, M.D.
Passaic	Steven I. Okin, M.D.
	Fulvio Patella, M.D.
	Henry V. Weinert, M.D.
	William L. Weintraub, M.D.
Somerset	Samuel H. Pogoloff, M.D.
Sussex	Charles J. D. McVeigh, M.D.
Union	Samuel W. Eason, M.D.
	Paul Geary, M.D.
	Benjamin E. Glass, M.D.
	Milton E. Lowell, M.D.
	Grace M. Robertson, M.D.
Warren	Timothy H. Spillane, M.D.

* Deceased

Reception for Recipients and Families Following Ceremony

1973 Annual Meeting

REFERENCE COMMITTEES

Saturday, 3:00 p.m — May 12, 1973
Sunday, 10:00 a.m. — May 13, 1973

Reference Committee on Constitution and Bylaws
Mandarin Room, Tower Floor, HH

Reports of the:
- Committee on Revision of Constitution and Bylaws
- Amendments to Constitution
- Amendments to Bylaws

Reference Committee "A"
Rutland Room, 1st Floor, HH

Reports of the:
- President
- Board of Trustees
- Secretary
- Judicial Council
- Executive Director
- Committee on Credentials

Reference Committee "B"
Tower Room, Tower Floor, HH

Reports of the:
- Treasurer
- Committee on Finance and Budget
- Committee on Publication
- Committee on Medical Student Loan Fund
- Committee on Project Hope/Vietnam
- Committee on Physicians' Relief Fund

Reference Committee "C"
Mandarin Room, Tower Floor, HH

Reports of the:
- Medical-Surgical Plan of New Jersey
- Committee on Medical Defense and Insurance
- Committee on Retirement Plan for Physicians

Reference Committee "D"
Solarium, Lounge Floor, HH

Reports of the:
- Committee on Medical Education
- Committee on Medicine and Religion
- Committee on Emergency Medical Care

Reference Committee "E"
West Room, Tower Floor, HH

Reports of the:
- Council on Legislation
- Council on Public Relations

Reference Committee "F"
Pavilion, 15th Floor, HH

Reports of the:
- Council on Medical Services, and its Special Committee on Occupational Health, Workmen's Compensation and Rehabilitation
- Council on Mental Health, and its Special Committees on:
  - Alcoholism
  - Drug Abuse
  - Emotional Disorders of Childhood and Adolescence
  - Mental Retardation
  - Neurological and Related Disorders

Reference Committee "G"
Bakewell Room, 1st Floor, HH

Reports of the:
- Council on Public Health, and its Special Committees on:
  - Cancer Control
  - Child Health
  - Conservation of Vision, Hearing, and Speech
  - Environmental Health
  - Maternal and Infant Welfare

Reference Committee "H"
Tower Room, Tower Floor, HH

Reports of the:
- Committee on Annual Meeting, and its Special Committees on:
  - Scientific Exhibits
  - Scientific Program
- Committee on Honorary Membership
- Advisory Committee to the Woman's Auxiliary
- Nominations for Emeritus Membership

The Committee on Credentials will meet at the Registration Desk each morning of the meeting.

1973 Annual Meeting

HOUSE OF DELEGATES

Saturday, 2:00 p.m.	May 12, 1973
Sunday, 3:30 p.m.	May 13, 1973
Monday, 3:15 p.m.	May 14, 1973
Tuesday, 9:00 a.m.	May 15, 1973

President—William J. D'Elia, M.D., Neptune Secretary—Louis F. Albright, M.D., Spring Lake
Speaker—Henry J. Mineur, M.D., Cranford
Vice Speaker—Edward Foord, M.D., Burlington

Sessions

Saturday, May 12—2:00 p.m.

First Session

Invocation
The Reverend Watson E. Neiman, M.D.
Trinity Episcopal Church, Moorestown
Call to Order by the Speaker
Henry J. Mineur, M.D.
Organization of the House
Transactions of the 1972 House of Delegates
Transactions of 1972 Special Session, House of Delegates
Introduction of Guests and Delegates from Other States
Annual and Supplemental Reports
Proposed Amendments to the Constitution and Bylaws
Resolutions
New Business
Announcements

Sunday, May 13—3:30 p.m.

Second Session

Report of Nominating Committee
Election
Inauguration of Incoming President
(At the conclusion of this session of the House of Delegates, the President and the President-Elect each will present his address.)

Monday, May 14—3:15 p.m.

Third Session (Part I)

Reports of Reference Committees

Tuesday, May 15—9:00 a.m.

Third Session (Part II)

Reports of Reference Committees
Unfinished Business
Adjournment

OFFICES TO BE FILLED BY ELECTION—1973 ANNUAL MEETING

Office	Term	From	To	Incumbent and County
President-Elect	1 year	May 1973	May 1974	Matthew E. Boylan Hudson
1st Vice-President	1 year	May 1973	May 1974	James A. Rogers Passaic
2nd Vice-President	1 year	May 1973	May 1974	John J. McGuire Essex
Secretary	1 year	May 1973	May 1974	Louis F. Albright Monmouth
Treasurer	1 year	May 1973	May 1974	Samuel J. Lloyd Mercer
Trustees				
1st District	3 years	May 1973	May 1976	Francis J. Benz Morris
4th District	3 years	May 1973	May 1976	Harold L. Colburn, Jr. Burlington
5th District	3 years	May 1973	May 1976	*A. Guy Campo Gloucester
Judicial Councilor				
3rd District	3 years	May 1973	May 1976	Albert F. Moriconi Mercer

* Ineligible for re-election, having served 3 consecutive terms.

Office	Term	From	To	Incumbent and County
AMA Delegates:	1½ years	June 1973	Dec. 1974	†Luke A. Mulligan Bergen
	2 years	Jan. 1974	Dec. 1975	Joseph P. Donnelly Hudson
	2 years	Jan. 1974	Dec. 1975	Isaac N. Patterson Gloucester
AMA Alternate Delegates	2 years	Jan. 1974	Dec. 1975	George L. Benz Essex
	2 years	Jan. 1974	Dec. 1975	Joseph R. Jehl Passaic
	2 years	Jan. 1974	Dec. 1975	Robert E. Verdon Bergen
Delegates and Alternate Delegates to Other States:				
New York:				
Delegate	1 year	1974 Annual Meeting		Albert F. Moriconi Mercer
Alternate	1 year	1974 Annual Meeting		Josiah C. McCracken, Jr. Atlantic
Connecticut:				
Delegate	1 year	1974 Annual Meeting		Warren H. Knauer Union
Alternate	1 year	1974 Annual Meeting		Gastone A. Milano Atlantic
Administrative Councils				
Legislation:				
2nd District	3 years	May 1973	May 1976	John J. Crosby, Jr. Hudson
3rd District	3 years	May 1973	May 1976	Leon A. Fraser Mercer
Medical Services:				
2nd District	3 years	May 1973	May 1976	James S. Todd Bergen
3rd District	3 years	May 1973	May 1976	*Karl T. Franzoni Mercer
Mental Health:				
4th District	3 years	May 1973	May 1976	Edward A. Schauer Monmouth
5th District	3 years	May 1973	May 1976	Miles E. Drake Cumberland
Public Health:				
2nd District	3 years	May 1973	May 1976	Kendrick P. Lance Passaic
3rd District	3 years	May 1973	May 1976	Thomas F. McLaughlin Middlesex
Public Relations:				
3rd District	3 years	May 1973	May 1976	Howard D. Slobodien Middlesex
6th Member	3 years	May 1973	May 1976	William N. Evans Burlington
Standing Committees				
Annual Meeting	3 years	May 1973	May 1976	Donald C. Davidson Atlantic
Finance and Budget	3 years	May 1973	May 1976	(a)*John S. Van Mater Middlesex
Medical Defense and Insurance	3 years	May 1973	May 1976	Anthony P. DeSpirito Monmouth
Medical Education	3 years	May 1973	May 1976	Frank C. Snope Hunterdon
Publication	3 years	May 1973	May 1976	Daniel B. Roth Bergen
Woman's Auxiliary	3 years	May 1973	May 1976	*Edward M. Coe Union

† Deceased—Vacancy to be filled by 1973 House.
* Inellgible for re-election, having served 3 consecutive terms
(a) Must be a member of 1973 House of Delegates.

1973 Annual Meeting

SPEAKERS

Saturday through Tuesday
May 12 to 15, 1973

Chalfonte-Haddon Hall
Atlantic City

Ayres, Stephen M., M.D., New York

Bermann, Pedro, M.D., Paterson
Bockus, Henry L., M.D., Philadelphia

Chodosh, Sanford, M.D., Boston
Chusid, E. Leslie, M.D., Flushing, N.Y.
Crickelair, George F., M.D., New York

Del Gaizo, Anthony, M.D., Paterson
Del Guercio, Louis R. M., M.D., Livingston

Ellis, William C., M.D., Long Branch

Foer, Warren H., M.D., Hackensack
Fontana, Vincent J., M.D., New York

Goldstone, Robert A., M.D., Paterson
Grigas, Mrs. Priscilla, CRNA, Greenwich, Conn.
Gutkin, Michael, M.D., Millburn

Hammer, Harvey M., M.D., Morristown
Hansen, H. J., Ph.D., Nutley
Hiatt, Robert B., M.D., New York
Hurley, Harry J., Jr., M.D., Upper Darby, Pa.

Kaplan, Harry A., M.D., Newark
Kuhn, Ralph, M.D., Paterson

Labow, Samuel B., M.D., Plainfield
Lehman, J. Stauffer, M.D., Somers Point
Lesnick, D. S., M.D., Long Branch
Levey, Mark, M.D., Irvington
Lewin, Michael L., M.D., Bronx

McDonough, Robert P., Esq., Westfield
Mintz, Ira. L., M.D., Englewood
Moss, Ervin, M.D., Verona
Mueller, Peter S., M.D., New Brunswick

Nochimson, David J., M.D., Los Angeles

Peck, George C., M.D., Passaic

Rocchio, Michael, M.D., East Providence, R.I.
Rush, Benjamin F., Jr., M.D., Newark

Salvati, Eugene P., M.D., New Brunswick
Schatman, Benjamin, M.D., Millburn
Schneider, George, M.D., East Orange
Scoma, Joseph, M.D., Plainfield
Selzman, Albert J., M.D., Atlantic City
Shannon, Gerard M., M.D., Philadelphia
Sherman, Arthur E., M.D., Chatham
Silverberg, Philip W., M.D., Livingston

Thompson, James C., M.D., Galveston
Thompson, James P., M.D., Paterson
Tourville, Donald R., Ph.D., Livingston

Warren, Frank Z., M.D., New York
White, J. Henry, M.D., Newark
Winkler, M. Bernard, M.D., Paterson
Winkler, Marvin H., Ph.D., New York

Yassin, John G., M.D., Falls Church, Va.

Zazanis, George A., M.D., Chatham

1973 Annual Meeting

SCIENTIFIC SECTION OFFICERS

Saturday through Tuesday
May 12-15, 1973

Chalfonte-Haddon Hall
Atlantic City

Allergy

CHAIRMAN—Arthur Fost, M.D., N. Belleville
SECRETARY—Frederic A. Schulaner, M.D., Westfield

Anesthesiology

CHAIRMAN—H. A. Ferrari, M.D., Summit
SECRETARY—Joseph A. Cox, M.D., Short Hills

Cardiovascular Diseases

CHAIRMAN—Harry A. Roselle, M.D., Englewood
SECRETARY—Lawrence A. Lubow, M.D., Morristown

Chest Diseases

CHAIRMAN—Albert Minzter, M.D., Elizabeth
SECRETARY—John J. Tambascia, M.D., Kendall Park

Clinical Pathology

CHAIRMAN—Martin J. Salwen, M.D., Long Branch
SECRETARY—Paul T. Wertlake, M.D., Short Hills

Dermatology

CHAIRMAN—James T. Vail, Jr., M.D., Summit
SECRETARY—Alfred J. Shapiro, M.D., Long Branch

Gastroenterology and Proctology

CHAIRMAN—Dave B. Swerdlow, M.D., Montclair
SECRETARY—David Kaufman, M.D., Elizabeth

General Practice

CHAIRMAN—Edward H. Weiser, M.D., Sussex
SECRETARY—Frank C. Snope, M.D., Flemington

Medicine

CHAIRMAN—James G. Kehler, Jr., M.D., Woodbury
SECRETARY—Paul K. Bornstein, M.D., Asbury Park

Neurosurgery and Neurology

CHAIRMAN—George L. Becker, Jr., M.D., Paterson
SECRETARY—Henry R. Liss, M.D., Chatham

Obstetrics and Gynecology

CHAIRMAN—Ralph H. Van Meter, M.D., Moorestown
SECRETARY—William H. Ainslie, M.D., Metuchen

Ophthalmology

CHAIRMAN—Donald A. Fonda, M.D., Ridgewood
SECRETARY—Vincent B. Pica, M.D., Trenton

Orthopedic Surgery

CHAIRMAN—Merle H. Katzman, M.D., Tenafly
SECRETARY—Martin L. Sorger, M.D., Montclair

Otolaryngology

CHAIRMAN—Howard E. Hock, M.D., Glen Ridge
SECRETARY—Joseph M. Lenczyk, M.D., Shrewsbury

Pediatrics

CHAIRMAN—Glenn P. Lambert, M.D., Flemington
SECRETARY—Anthony P. DeSpirito, M.D., Asbury Park

Plastic and Reconstructive Surgery

CHAIRMAN—Ursula W. Steinberg, M.D., Plainfield
SECRETARY—Morton H. Goldstein, M.D., New Brunswick

Psychiatry

CHAIRMAN—Chester L. Trent, M.D., Asbury Park
SECRETARY—Alvin Friedland, M.D., East Orange

Radiology

CHAIRMAN—Allan J. Scher, M.D., Morristown
SECRETARY—David N. Bramwit, M.D., Hackensack

Rheumatism

CHAIRMAN—Leroy H. Hunninghake, M.D., Princeton
SECRETARY—Sheldon Solomon, M.D., Marlton

Surgery

CHAIRMAN—Joseph Alpert, M.D., Millburn
SECRETARY—John J. White, M.D., Princeton

Urology

CHAIRMAN—Richard Fadil, M.D., Passaic
SECRETARY—Anthony Del Gaizo, M.D., Paterson

1973 Annual Meeting

MOTION PICTURE THEATER

Saturday, May 12	2 p.m.
Sunday, May 13	10 a.m. and 2 p.m.
Monday, May 14	10 a.m. and 2 p.m.

Arranged and presented through the cooperation of Roche Laboratories, Division of Hoffman-LaRoche, Inc., Nutley.

10:00 a.m. and 2:00 p.m.

The Nurse, the Physician, and the Law

What is the responsibility of the hospital for negligence or malpractice on the part of its employees? By enacting a preliminary meeting between the attorney and the participants in a suit, this responsibility is illustrated.

(Presented through the courtesy of Roche Laboratories)

10:35 a.m. and 2:35 p.m.

Stress and the Adaptation Syndrome

This film depicts the effect of various physical and psychic stresses and the mechanisms by which the animal effects adaptation. An excellent exposition of Dr. Hans Selye's monumental contribution toward the understanding of the interrelationship between stress and disease is presented.

(Presented through the courtesy of Pfizer Laboratories)

11:15 a.m. and 3:15 p.m.

Diagnosis and Treatment of Sedative Overdosage

Here stressed is diagnosis—even differential diagnosis—and management of sedative-analgesic-tranquilizer overdosage. The following "10 Commandments" are emphasized:

1. Secure a free airway immediately and maintain it.
2. Provide for adequate ventilation.
3. Use oxygen as required.
4. Do not use CNS stimulants.
5. Promptly insert a CVP catheter.
6. Treat hypotension with volume expanders and avoid pressor agents.
7. Perform gastric lavage.
8. Induce an alkaline osmotic diuresis.
9. Carefully observe fluid, electrotyte, pH, and blood gas homeostasis.
10. Avoid decubiti and thrombosis.

(Presented through the courtesy of Ciba Pharmaceutical Company)

11:50 a.m.

Frontiers of Psychiatry on Camera Exploring the Treatment of Alcoholism

"Letting the patient shop around for a therapy that helps him" is how Ernest W. Klatte, M.D., Superintendent of the Mendocino State Hospital in California, explains the growing success of the hospital's program for treating alcoholism. Many different therapies are utilized to motivate the patient to find his own treatment and to follow it.

(Presented through the courtesy of Roche Laboratories)

3:50 p.m.

Physical Examination of the Newborn

This film demonstrates the art of physical examination of the neonate and depicts not only technics for routine physical examination but also special technics for the recognition of anomalies which may be present. A number of normal conditions which are frequently mistaken for defects are shown.

(Presented through the courtesy of Pfizer Laboratories)

The Medical Society of New Jersey Welcomes the Following Delegates and Guests

Connecticut	E. Tremain Bradley, M.D., Norwalk Clifford E. Wilson, M.D., Norwich
Maryland	William C. Ebeling, M.D., Baltimore
Pennsylvania	Robert S. Sanford, M.D., Mansfield

1973 Annual Meeting

SCIENTIFIC PROGRAM

Sunday, May 13
Monday, May 14

Scientific Section Sessions

Scientific Section Sessions

Sunday Morning, May 13

Ophthalmology

(Cosponsored by the New Jersey Academy of Ophthalmology and Otolaryngology

9:00 a.m. Intubation of the Lacrimal System
J. HENRY WHITE, M.D., Assistant Professor of Ophthalmology, New Jersey Medical College, CMDNJ, Newark

Intubation between the lacrimal sac and the puncta may be described as anterior, while that between the sac and the nose is classified as posterior. These may be further sub-divided into temporary and permanent.

Anterior temporary intubation may be achieved with nylon, polyethylene tubing, silk, tycron, or metal rod.

Anterior permanent intubation may be attained with pyrex or silicone rubber tubing or vein grafts.

Posterior temporary intubation using a French catheter is advantageous.

Posterior permanent intubation with pyrex and silicone rubber tubes has proved satisfactory.

9:30 a.m. Surgical Treatment of Carcinoma of Eyelids and Orbit
GERARD M. SHANNON, M.D., Clinical Professor of Ophthalmology, Temple University School of Medicine; and Director and Attending Surgeon, Oculoplastic Department, Wills Eye Hospital, Philadelphia

Goal of the ophthalmologist in surgery of the lid and orbital tumors is the complete removal of the tumor and repair of the defect so that both a functional and acceptable cosmetic result ensues. In orbital tumor surgery this goal is even more demanding because extraocular muscle function and preservation of vision must be considered. Acceptable results can be expected in the majority of cases, if careful attention is paid to several important points. The history of the growth, its size, and its location, ascertained by a careful clinical examination, are mandatory. Special attention must be paid to the characteristics of the patient's tissues. These factors help to decide which procedure will be efficacious.

Alternative therapeutic modalities, such as radiation and chemotherapy, may be helpful in some cases, but are potentially dangerous. Many of our most difficult problems have been caused by these non-surgical treatments. In cases where they are to be used the possible complications should be discussed thoroughly with the patient. Pre- and post-operative, or post-therapeutic photographs which demonstrate both appearance and function are very important in managing difficult cases.

10:00 a.m. Office and OPD Oculoplastic Surgery
JOHN G. YASSIN, M.D., Instructor in Ophthalmology, Georgetown University Medical School; and Attending Surgeon, Washington Hospital Center, Washington

A thorough understanding of the surgical anatomy of the lids and contiguous structures is necessary to perform the anesthesia and surgery to be described. To do office surgery one must have proper instruments, sterilization technics, and resuscitative equipment. In this regard, there are serious medical-legal problems to be considered. Those procedures which are appropriately done in the office will be described in detail. Finally, there are others which can be performed in the hospital on an out-patient basis. In these cases, special emphasis is placed on pre-operative selection and anesthesia.

10:30 a.m. Plastic Surgery for the Ophthalmic Surgeon
ARTHUR E. SHERMAN, M.D., Advisory Attending Ophthalmologist, Hospital Center, Orange

An ophthalmologist capable of good intraocular and muscle surgery is also quite able satisfactorily to carry out most plastic procedures in the ocular region. A number of such procedures, useful in dealing with eyelid deformities and tumors, will be discussed with slides to illustrate these and also to illustrate the results to be expected. They are not difficult or complicated procedures, but require attention to detail. Also, a number of operative procedures that should be avoided will be shown and the reasons given.

11:00 a.m. Panel Discussion

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

12:30 p.m. Luncheon—New Jersey Academy of Ophthalmology and Otolaryngology

Reservations: Donald A. Fonda, M.D.
20 Wilsey Square
Ridgewood 07450

Sunday Morning May 13

Allergy
Dermatology

(Cosponsored by the New Jersey Allergy Society)

9:30 a.m. Allergic Dermatitis
VINCENT J. FONTANA, M.D., Clinical Professor of Pediatrics, New York University School of Medicine; and Director, Pediatrics and Pediatric Allergy, St. Vincent's Hospital and Medical Center, New York

Summary not received

Questions and Answers

10:30 a.m. Urticaria of Physical Allergy
HARRY J. HURLEY, M.D., Professor of Clinical Dermatology, University of Pennsylvania School of Medicine. Philadelphia

Physical influences such as heat, cold, and light have long been known to induce urticaria in certain individuals. A variety of clinically distinctive syndromes have been described including localized and generalized (cholinogenic, aquagenic) heat urticaria, essential cold urticaria, cryoglobulinemia, the cold hemolysin and cold agglutinin syndromes, and solar urticaria. Pathogenesis, diagnostic features, and therapy of these disorders will be reviewed and evidence indicating the allergic nature of some of them summarized. Special emphasis will be placed on cholinogenic urticaria which is probably far more common than previously believed and is often mistaken for other forms of urticaria.

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visits to Exhibits

Sunday Morning, May 13

Cardiovascular Diseases

(Cosponsored by New Jersey Chapter, American College of Cardiology)

9:30 a.m. Symposium on Newer Aspects of Hypertension

Renin-Angiotensin System
MICHAEL GUTKIN, M.D., Chief Hypertension Clinic, Veterans Administration Hospital, East Orange; and Clinical Assistant Professor of Medicine, New Jersey Medical College, CMDNJ, Newark

Although angiotensin I and II are critical in the maintenance of normal blood pressure, plasma renin activity (PRA) is not directly related to blood pressure in hypertensive patients. Mean PRA is lower than normal in hypertensives, some of whom have markedly depressed values unresponsive to usually effective stimuli. Low PRA is most notable in essential hypertension, mineralocorticoid excess, and the anephric state. High PRA is commonly seen in malignant hypertension, hyperdynamic hypertension, "pill" hypertension, and pheochromocytoma. Classifying hypertensives according to their PRA may be therapeutically useful.

Prostaglandins in Hypertension
GEORGE SCHNEIDER, M.D., Chief of Endocrinology, Veterans Administration Hospital, East Orange; and Assistant Professor of Medicine, New Jersey Medical College, CMDNJ, Newark

Summary not received

Panel Discussion—Question and Answer Period

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

Sunday Afternoon, May 13

Anesthesiology

(Cosponsored by the New Jersey State Society of Anesthesiologists)

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12 noon Luncheon—New Jersey State Society of Anesthesiologists

Reservations: Joseph A. Cox, M.D.
34 Hobart Gap Road
Short Hills 07078

1:00 p.m. Symposium on the Effect of Court Decisions on the Practice of Anesthesia and Surgery

Moderator: Joseph A. Cox, M.D., Secretary, Section on Anesthesiology

Welcome: H. A. Ferrari, M.D., Chairman, Section on Anesthesiology

1:15 p.m. Legal Viewpoint
ROBERT P. McDONOUGH, Counselor-at-law, McDonough, Murray, Weeker, Westfield

Summary not received

1:30 p.m. Anesthesiologist's Viewpoint
ERVIN MOSS, M.D. Attending Anesthetist, Alexian Brothers Hospital, Elizabeth

A presentation on malpractice will be devoted to important decisions related to the practice of anesthesiology. Stress will be placed on the doctrine of informed consent and the doctrine of res ipsa loquitur.

1:45 p.m. Nurse Anesthetist's Viewpoint
MRS. PRISCILLA GRIGAS, C.R.N.A., President, New Jersey Association of Nurse Anesthetists

The effects of court decisions on the practice of anesthesia and their relation to the C.R.N.A. are myriad. Increased malpractice premiums and increased incidence of subrogation are some of the new problems with which the C.R.N.A. is faced. From negative aspects, as professionals, we have accepted the challenges and have taken positive action to insure a better quality of anesthesia to our patients.

2:00 p.m. Surgeon's Viewpoint
LOUIS R. M. DEL GUERCIO, M.D., Director of Surgery, St. Barnabas Medical Center, Livingston

Summary not received

2:15 p.m. Panel Discussion

2:30 p.m. Business Meeting—Election of Officers

2:45 p.m. Visit to Exhibits

CONVENTION RECEPTION

Saturday, May 12, 1973

Cocktails—Buffet-Dinner

Dancing

(Tickets at Registration Desk)

DINNER-DANCE

Monday, May 14, 1973

Guest Speaker

Dancing

(Tickets at Registration Desk)

Sunday Afternoon, May 13

Neurosurgery and Neurology

(Cosponsored by the New Jersey Neurosurgical Society)

1:00 p.m. Symposium on Recent Advances in the Control of Pain

Chairman: George L. Becker, Jr., M.D., Senior Attending Neurosurgeon, St. Joseph's Hospital, Paterson, and Instructor in Neurosurgery, Columbia University College of Physicians and Surgeons, New York

Moderator: Henry R. Liss, M.D., Associate Professor of Neurosurgery, Rutgers Medical School, CMDNJ, Piscataway; and Attending Neurosurgeon, Morristown Memorial Hospital, Morristown

Applied Anatomic Aspects of Pain
HARRY A. KAPLAN, M.D., Professor of Neurosurgery, New Jersey Medical College, CMDNJ; and Director, Division of Neurosurgery, Martland Hospital, Newark

In control of pain, one must, of necessity, have a clear concept of the organization of the nervous system. The location of the painful area, the pathway over which the so-called pain impulses are mediated, and the individual interpretation of the type or severity of the pain must be estimated. The lateral spinothalmic tract carrying pain and temperature impulses frequently is cut for the relief of pain. This tract may be sectioned surgically or interrupted by injections of chemicals. Surgical procedures on the forebrain for relief of pain usually consist of sectioning the white fiber tracts in the prefrontal region. This blunts the individual sufficiently to allow him to accept pain without any emotional response.

Psychophysiological Aspects of Pain
HARVEY M. HAMMER, M.D., Assistant Professor of Psychiatry, Rutgers Medical School, CMDNJ, Piscataway; and Attending Psychiatrist Morristown Memorial Hospital, Morristown

The functional determinants of pain have classically been considered from the point of view of two separate entities. Pain as a symbolic representation of a neurotic conflict and pain accompanying psychophysiological disorders will be discussed.

Recent studies concerning psychogenic pain have revealed a number of clinical features which are important for the physician in investigating the relative functional-organic component of pain. The importance of this evaluation in the various specialties of medicine will be discussed. Finally, the management of psychogenic pain, once diagnosed in association with or without various organic conditions, will be presented. The prognoses in a select number of cases will further illustrate the difficulties encountered by the practicing physician.

Advances in Surgery for Pain
GEORGE A. ZAZANIS, M.D., Associate Professor of Neurosurgery, Rutgers Medical School, CMDNJ, Piscataway; and Attending Neurosurgeon, New Jersey Medical School, CMDNJ, Newark

Neuroprosthetics and more recent neurophysiological technics for the treatment of pain will be discussed. A review of the recent appearance of electronic devices and equipment for the treatment of chronic intractable pain of various causes will be offered. A variety of cases will be presented and results analyzed.

Percutaneous Cordotomy for Somatic Pain Relief
WARREN H. FOER, M.D., Associate Attending Neurosurgeon, Hackensack Hospital, Hackensack; and Assistant Clinical Professor of Neurosurgery, New Jersey Medical School, CMDNJ, Newark

Despite the availability of potent analgesic agents, the control and alleviation of intractable pain presents challenge to the physician. With the development of percutaneous cervical radiofrequency, stereotaxic cordotomy (to disrupt the lateral spinothalamic tract), a simple, relatively safe, and highly effective means to alleviate pain in a variety of diseases, is now available. It has proved to be particularly well adapted for the patient with pain secondary to advanced malignancy. The author's experience in utilizing this procedure, including patient selection, operative technic, risks, and results will be discussed.

Pain About the Head (Trigeminal Neuralgia)
M. BERNARD WINKLER, M.D., Assistant Clinical Professor of Neurosurgery, Mt. Sinai School of Medicine, New York; and Director of Neurosurgery, St. Joseph's Hospital, Paterson.

Since Spiller and Frazier's classic work in 1901, it has been clear that permanent relief in trigeminal neuralgia depends on retrogasserian section of the trigeminal nerve. The fibres can be interrupted mechanically, by physical means, or electrically. The author describes the technic of selective destruction of retrogasserian fibres by percutaneous injection of boiling water in small increments. The method, a modification of that originally described by Dr. Rudolph Jaeger, avoids major surgery and some of its complications.

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

VISIT THE EXHIBITS

Sunday Afternoon, May 13

Psychiatry

(Cosponsored by the New Jersey Psychiatric Association and New Jersey Psychoanalytic Society)

1:00 p.m. Nihilism and Despair, Rebirth and Repair; A Psychoanalytic View of the Adolescent Crisis
IRA L. MINTZ, M.D., Clinical Professor of Psychiatry, New Jersey Medical College, CMDNJ, Newark; and Attending Psychiatrist, Hackensack Hospital, Hackensack.

A psychoanalytic view is presented of the pressures faced by adolescents today, and of the way they have chosen to resolve them. Adolescence is normally a tumultuous stage, filled with attempts at dealing with problems of independence, aggression, and sexuality. It is characterized by alternating cycles of profound understanding, insight, and compassion, only to be replaced by periods of indifference, petulance, and querulousness.

Changes in the current culture have exercised a major influence upon the adolescent. Widespread violence, sexual stimulation, drug usage, permissiveness, and a hedonistic art culture, all have complicated normal adolescent development.

An attempt will be made to explore the role of these factors upon adolescent behavior.

1:30 p.m. Carbohydrate Metabolism and Depression
PETER S. MUELLER, M.D., Associate Professor of Psychiatry, Rutgers Medican School, CMDNJ, Piscataway

A 300-year history relates abnormalities of carbohydrate metabolism with various psychiatric disorders, particularly severe depression. The significance of this relationship is important, not only for understanding of psychiatric illness, but also in terms of management of diabetes and other metabolic disorders. The studies of glucose metabolism in depressive illnesses seek to establish the relationship of glucose utilization to the affective state with concomitant assessment of serum insulin and growth hormone. Results were that insulin resistance and decreased glucose utilization were manifested consistently in psychotic depression, and were not related to physical activity, nutrition, initially elevated serum human growth hormone levels, or age. These abnormalities disappeared following successful treatment with amitriptyline. Mania was associated with increased or prolonged insulin sensitivity and abnormal rates of glucose utilization. Clinical behavioral and affective ratings indicated that insulin resistance was positively correlated with depressive, and negatively with manic, symptomatology. Pertinence of these findings will be discussed in relationship with depression and other medical illnesses.

2:00 p.m. Question and Answer Period

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

Monday Morning, May 14

Chest Diseases, General Practice, Medicine

(Cosponsored by New Jersey Chapter, American College of Chest Physicians, New Jersey Chapter, American Academy of Family Physicians, and New Jersey Society of Internal Medicine)

(Program is acceptable for two (2) Prescribed Hours by the American Academy of Family Physicians)

9:00 a.m. Symposium on Chronic Obstructive Lung Disease

Pathogenesis of the Specific Disease Comprising the COLD Wastebasket
SANFORD CHODOSH, M.D., Research Associate, Lung Station (Tufts), Boston City Hospital; and Assistant Professor of Medicine, Tufts University School of Medicine, Boston

Chronic obstructive lung disease is a physiologic description which includes a number of specific diseases of the lung, such as chronic bronchitis, chronic bronchial (extrinsic) asthma, chronic asthmatic (intrinsic) bronchitis, and pulmonary emphysema.

Conceptually, chronic obstructive lung disease provides little insight into the pathology which underlies the obstruction and, therefore, does not provide the basis for individualized therapy necessary. The practical differentiation of these diseases can be accomplished with available diagnostic tests.

COLD—Overlap Syndromes, Their Recognition and Effect on Lung and Cardiac Function
E. LESLIE CHUSID, M.D., Chief, Pulmonary Division and Director, Respiratory Care Unit, Booth Memorial Medical Center, Flushing; and Assistant Clinical Professor of Medicine, Mount Sinai School of Medicine of the City University of New York

Disease entities which make up the symptom complex of chronic obstructive lung disease (COLD) may be distinguished by clinical and physiologic criteria. The obstructive airway symptoms of asthma, bronchitis, emphysema, and small airway disease may be differentiated by an accurate history (allergy, infection, heredity, smoking, etc.) and by auscultation (inspiratory and expiratory components). Definitive clarification and degree of impairment may be made by selective pulmonary function testing (lung volumes, lung dynamics and mechanics, diffusion, flow-volume studies).

The effect of these diseases on cardiac function is variable but predictable. Knowledge of acute cor pulmonale and left heart failure mechanisms enhance the ability to recognize combined pulmonary and cardiac insufficiency.

Only in minor instances will a true overlap of the diseases comprising COLD cause difficulty in diagnosis, and here more sophisticated methods of analysis are required (biochemical studies, scanning technics, immunologic studies).

COLD—Management of the Patient and His Problems
STEPHEN M. AYRES, M.D., Director, Cardio-Pulmonary Department, St. Vincent's Hospital; and Associate Professor of Clinical Medicine, New York University School of Medicine, New York

Chronic obstructive lung disease like many chronic illnesses involves the entire patient as much as it involves the lung. Organic problems are closely related to obvious emotional problems. Hyperventilation with dyspnea, for example, is frequently due to panic and may be treated more effectively by reassurance than by breathing oxygen. This presentation will outline the pathophysiologic abnormalities in chronic lung disease and stress the integrated utilization of a variety of patients' problems, oxygen therapy, inhalation therapy. ventilatory therapy, specific pharmacology, and physical technics.

Most satisfying is the common observation that the patient with chronic lung disease improves significantly and is frequently able to return to work, even though his routine pulmonary function studies are unchanged.

10:30 a.m. Panel Discussion—Question and Answer Period

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

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12 noon Luncheon — New Jersey Chapter, American College of Chest Physicians —Annual Selman A. Waksman Lecture

Reservations: Albert Minzter, M.D.
350 Irvington Avenue
Elizabeth 07208

JEMPAC BREAKFAST

Monday, May 14, 1973

8 a.m.—Pennsylvania Room I

Tickets Available

Informational Exhibit Booth 210

Monday Morning, May 14

Orthopedic Surgery

(Cosponsored by New Jersey Orthopaedic Society and New Jersey Chapter, American College of Emergency Physicians

9:00 a.m. Follow-up Results of Common Hand Injuries
ROBERT A. GOLDSTONE, M.D., Attending in Orthopedics, St. Joseph's Hospital, Paterson; and Assistant Clinical Professor of Surgery (Orthopedics), New Jersey Medical College, CMDNJ, Newark

A series of cases will be presented documenting the appearance of a variety of hand injuries, their methods of management, with successful and unsuccessful results. It will be illustrated that initial, desperate-appearing situations can produce a salvageable hand, and that radiologic appearance is not necessarily an indication of function.

9:30 a.m. Experience Treating Hip Fractures in a Community Hospital
D. S. LESNICK, M.D., Monmouth Medical Center, Long Branch

Summary not received

10:00 a.m. Slipped Capital Femoral Epiphysis
RALPH KUHN, M.D., St. Joseph's Hospital, Paterson

Presented will be a discussion of diagnosis, natural history, and treatment of slipped capital femoral epiphysis (SCFE), including both minimal and severe slips.

10:30 a.m. Coffee Break

11:00 a.m. Compression Plating
PEDRO BERMANN, M.D., St. Joseph's Hospital, Paterson

Summary not received

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

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12 noon Luncheon—New Jersey Orthopaedic Society
Reservations: Merle H. Katzman, M.D.
111 Dean Drive
Tenafly 07670

VISIT THE EXHIBITS

Monday Morning, May 14

Surgery

(Cosponsored by New Jersey Chapter, American College of Surgeons

9:00 a.m. Welcome: Joseph Alpert, M.D., Chairman, Section on Surgery

9:20 a.m. Introduction of Panelists and Moderator's Remarks
BENJAMIN F. RUSH, Jr., M.D., Johnson and Johnson Professor of Surgery, Chairman, Department of Surgery, New Jersey Medical School, CMDNJ, Newark

9:30 a.m. Differential Diagnosis and Medical Management of Ulcerative Colitis and Granulomatous Colitis
HENRY L. BOCKUS, M.D., Emeritus Professor of Internal Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia

When it became known (more than a decade ago) that Crohn's disease may involve the colon, medical journals were deluged with reports dealing with the inter-relationships between the Crohn colon and ulcerative colitis—their similarities and differences. The theme was: are they distinct entities or merely different patterns of the same basic pathologic process? The consensus is that, in most instances, they do occur as distinct entities. The presentation will attempt to clarify the characteristics, both etiopathologic and clinical, when they do not co-exist. The present status of medical management will be reviewed.

10:10 a.m. Indications for Operation in Patients with Ulcerative Colitis and Granulomatous Colitis
JAMES C. THOMPSON, M.D., Professor and Chairman, Department of Surgery, University of Texas Medical Branch, Galveston

Usually the initial treatment of ulcerative colitis should be medical and the need for surgical intervention arises only when conservative measures fail. Intractability is currently the most common indication for operation. Chronic disabling colitis and its major complications (perirectal disease, fistulas, strictures) represent the operative indications for about 45 per cent of the patients who undergo operation. Severe, acute exacerbation with toxemia that does not respond to conservative therapy constitutes the most common indication in the acute stages. In longstanding disease, the risk of carcinoma is greatly increased, achieving an incidence of 40 per cent after 30 years of disease. In granulomatous or transmural colitis, chronic intractable disease with acute exacerbations is the most common surgical indication: obstruction is second. Perirectal disease with fistula formation, perianal or recto-vaginal, is common. Acute perforation, toxic dilatation, and hemorrhage are less frequent than in ulcerative colitis. No increased incidence of malignancy has been reported. The incidence of ileitis after colectomy has been reported to be as high as 50 per cent.

10:50 a.m. Surgical and Postoperative Considerations in Ulcerative Colitis and Granulomatous Colitis
ROBERT B. HIATT, M.D., Professor of Surgery, Columbia University College of Physicians and Surgeons, New York City

The standardization of therapy for inflammatory disease of the intestine that has occurred in the past two decades has actually increased our sense of therapeutic inadequacy. In regional ileitis, for example, the over-riding factor is recurrence which is probably in excess of fifty per cent. This has resulted in renewed efforts to determine etiology that has eluded us so long.

Our new approach involves the use of a recently isolated polypeptide obtained from the posterior pituitary gland which has a remarkable regularizing effect on intestinal motor function. This material, provisionally called coherin, has been used in seventeen ileitis patients developing recurrence after surgery with very encouraging results.

11:30 a.m. Panel discussion
HENRY L. BOCKUS, M.D., ROBERT B. HIATT, M.D., JAMES C. THOMPSON, M.D., and EUGENE P. SALVATI, M.D., Clinical Assistant Professor of Surgery, Rutgers Medical School, CMDNJ, New Brunswick

12 noon Business Meeting—Election of Officers

12:30 p.m. Visit to Exhibits

MESSAGE CENTER

courtesy of

American Association of Medical Assistants State of New Jersey

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COFFEE LOUNGE

sponsored by

The Prudential Insurance Company of America

Monday Morning, May 14

Obstetrics and Gynecology Pediatrics

(Cosponsored by the New Jersey Chapter, American Academy of Pediatrics)

9:30 a.m. Symposium on Perinatal Medicine

Antepartum Evaluation and Intrapartum Monitoring
JAMES P. THOMPSON, M.D., Attending in Obstetrics and Gynecology, St. Joseph's Hospital, Paterson; and Clinical Assistant Professor of Obstetrics and Gynecology, New Jersey Medical College, CMDNJ, Newark

Identification of the pregnant patient at risk has stimulated great interest in investigation of the fetus and his environment. Methods of antepartum monitoring of the pregnant patient include ultrasonography, measurements of urinary metabolites, serial blood determinations, and assessment of amniotic fluid for fetal well-being and maturity. Particular emphasis will be placed on the value of the lecithin/sphingomyelin ratio and a rapid test for its determination will be described. Intrapartum monitoring of the fetal heart rate, intrauterine pressure recordings, and fetal scalp sampling will be discussed. In addition, methods of post partum monitoring, including assessment of the patient who has delivered a stillborn infant and patients who have had hemorrhagic complications of delivery, will also be presented.

10:10 a.m. Fetal Evaluation Prior to Labor—Maturity and Well-Being
DAVID J. NOCHIMSON, M.D., Assistant Professor, Department of Obstetrics and Gynecology, Los Angeles County/University of Southern California Medical Center, Los Angeles

During the past three decades there has been a dramatic decrease (approximately tenfold) in maternal mortality. Unfortunately, over the same period, with the same high standards of medical care, perinatal mortality has remained essentially unchanged. It is the purpose of this review to acquaint the physician interested in perinatal medicine with some of the newer methods in antepartum fetal surveillance in order to detect fetal jeopardy and evaluate fetal maturity. Four assays used regularly at LAC-USC Medical Center provide the most reliable information for determining antepartum (measured daily), fetal response to the exytocin challenge test (OCT), ultrasound technic (A, B scan), and lecithin/sphingomyelin ratio (L/S ratio) in the amniotic fluid. While these methods have proved to be valuable in our hands, the clinician must always appreciate their limitations.

10:50 a.m. The Effect of Perinatal Transfer of the Neonate on Perinatal Mortality
WILLIAM C. ELLIS, M.D., Professor of Pediatrics, Hahnemann Medical Center, Philadelphia; and Chairman, Department of Pediatrics, Director, Regional

Newborn Center, Monmouth Medical Center, Long Branch

Accepting the value of regionalized newborn care, the obstetrical staff of Hunterdon Medical Center decided to move the materno-fetal unit to a regional center under the following criteria:

(a) Mortality risk 25 per cent or greater (less than 33 weeks gestation);
(b) mortality risk 4 per cent or greater (less than 35 weeks gestation), with multiple gestation or other risk factors such as previous neonatal loss;
(c) newborn (if delivery had to be accomplished at referring institutions for emergency reasons) fits other criteria for transfer.

Decision to transfer was left with the obstetrical staff at Hunterdon Medical Center but always involved a telephone consultation. Transport time for materno-fetal transfer was two hours or less; neonatal transfer time was five hours. Results will be discussed.

11:30 a.m. Business Meeting—Election of Officers

11:45 a.m. Visit to Exhibits

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12 noon Luncheon—New Jersey Chapter, American Academy of Pediatrics

Reservations: William C. Ellis, M.D.
270 Third Avenue
Long Branch 07740

Monday Morning, May 14

Rheumatism

(Cosponsored by New Jersey Society of Physical Medicine and Rehabilitation)

9:30 a.m. What is Acupuncture—1973?
FRANK Z. WARREN, M.D., Clinical Assistant Professor, Department of Anesthesiology, New York University Medical Center; and Director, The National Acupuncture Research Society, New York City

Summary not received

10:10 a.m. Question and Answer Period

10:30 a.m. Clinical Application of Acupuncture
FRANK Z. WARREN, M.D., New York City

Summary not received

11:10 a.m. Question and Answer Period

11:30 a.m. Business Meeting—Election of Officers

Visit to Exhibits

Monday Morning, May 14

Clinical Pathology

(Cosponsored by New Jersey Society of Pathologists)

10:00 a.m. Symposium on Immunologic Tools in the Diagnosis of Disease

Radioimmunoassay—CEA (Carcinoembryonic Antigen)
H. J. HANSEN, Ph.D., Head, Cancer Detection Research Laboratory, Hoffmann-LaRoche Laboratories, Nutley

Summary not received

Role of Clinical Immunology in the Laboratory
DONALD R. TOURVILLE, Ph.D., Chief, Immunology and Microbiology, Saint Baranabas Medical Center, Livingston

Summary not received

Immunoassay and Immunoelectrophoresis Quantitating and Characterizing the Immunoglobulins
MARVIN H. WINKLER, Ph.D., Associate Professor, Department of Medicine, Mount Sinai School of Medicine, New York; and Associate Attending Immunologist, City Hospital Center at Elmhurst, New York

It has long been known that certain pathologies are associated with abnormal levels of one or another major class of immunoglobulins. More recently alterations in the normal levels of specific subclasses have been correlated with distinct disorders. Current studies on "idiotypic" and "individual" determinants as well as some newly uncovered relations between allotypy and specificity are suggestive that an even more sophisticated approach may be diagnostically fruitful.

Roundtable—Clinical Applications and Significance of Immunologic Tests

12 noon Business Meeting—Election of Officers

12:15 p.m. Visit to Exhibits

12:30 p.m. Luncheon-Meeting—New Jersey Society of Pathologists
Reservations: Milton Ackerman, M.D.
Atlantic City Hospital
Atlantic City 08401

Visit The Exhibits

Informational
Scientific
Technical

Monday afternoon, May 14

Gastroenterology and Proctology General Practice Medicine

(Cosponsored by New Jersey Gastroenterological Society, New Jersey Chapter, American Academy of Family Physicians, and New Jersey Society of Internal Medicine.

(Program is acceptable for two (2) Prescribed Hours by the American Academy of Family Physicians.)

1:00 p.m. Colonscopy

BENJAMIN SCHATMAN, M.D., Millburn; Assistant Professor of Surgery, New Jersey Medical School, CMDNJ, Newark; and Associate Attending Proctologist, Saint Barnabas Medical Center, Livingston

and

SAMUEL B. LABOW, M.D., Department of Colon and Rectal Surgery, Saint Barnabas Medical Center, Livingston

Fibreoptic colonoscopy has added a new dimension to the practice of colon and rectal surgery. Rapid examination of the entire colon by direct visualization is possible in most cases with no risk and minimal discomfort. Four distinct patient groups have been benefited by this procedure.

a. Patients with suspicious areas on barium enema x-ray, where a definite lesion cannot be excluded.

b. Patient with lower gastrointestinal bleeding where no definitive diagnosis is possible with barium studies.

c. Follow-up of patients after resection for colonic malignancy.

d. Nonoperative removal or benign tumors above the level of the sigmoidoscope without laparotomy, or biopsy of sessile lesions above twenty-five centimeters.

Our experience with colonoscopy, with clinical examples of its uses, and a discussion of polypectomy without laparotomy will be presented.

1:40 p.m. Anal Rectal Manifestations of Systemic Disease

JEROME SCOMA, M.D., Department of Colon and Rectal Surgery, Muhlenberg Hospital, Plainfield

Every physician who examines the anus and rectum should be aware not only of the normal findings but also the abnormal findings he may encounter. Besides the usual fissures, fistulas, and hemorrhoids the examiner may note some clues to systemic disease. In this paper the anorectal manifestations of some of these diseases—syphilis, gonorrhea, ulcerative colitis, Crohn's disease, diabetes, actinomycosis, and the various hematological disorders are presented.

2:20 p.m. Use of Elemental Diets in a Variety of Inflammatory Bowel Disorders

MICHAEL ROCCHIO, M.D., Rhode Island, Hospital, Providence

In patients with inflammatory bowel disease, maintenance of adequate caloric intake and avoidance of marked catabolism with its attendant complications has been facilitated by use of chemically defined liquid elemental diets. Twenty-four patients have been fed these diets during hospitalization for acute exacerbation of inflammatory bowel disease. Nitrogen balance studies (11 patients) and body composition studies (3 patients) have confirmed clinical observation of a marked anabolic response followed by clinical improvement with elemental diets despite extensive gastrointestinal disease.

The ability to maintain positive nitrogen balance with enteral nutrition, despite acute exacerbation, is a significant contribution to the treatment of patients with inflammatory bowel disease, obviating surgery in some, and significantly reducing the operative risk in others.

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

Exhibit Hall Hours

Saturday—noon to 5 p.m

Sunday and Monday—9 a.m. to 5 p.m.

Monday afternoon, May 14

Obstetrics and Gynecology
Radiology
Urology

(Cosponsored by the New Jersey Chapter American College of Radiology)

1:00 p.m. Pelvic Venography, Technic, Findings, and Complications
PHILIP W. SILVERBERG, M.D., Department of Radiology, Saint Michael's Medical Center, Newark

More than twenty patients were referred for pelvic venography because of a suspicion of ovarian vein syndrome, pelvic congestion syndrome, ovarian vein thrombosis, questionable extrauterine pregnancy, or pulmonary emboli secondary to ovarian vein thrombosis.

Discussion will include normal anatomy, pelvic congestion, previous oophorectomy with ligation of both ovarian veins, the ovarian vein syndrome, with both methods of injection, (direct myometrial injection with Teflon-sleeved needle and ovarian vein catheterization as in the Seldinger technic) pre- and post-surgical studies, and ovarian vein thrombosis secondary to tuberculous endometritis. Ektachrome transparencies of the surgical findings will be included. History of the study, the physiology, the indications, and the complications will be presented.

1:30 p.m. Use of Ultrasound in Obstetric and Gynecologic Diagnosis
J. STAUFFER LEHMAN, M.D., Emeritus Professor of Radiology, Hahnemann Medical College, Philadelphia; and Senior Associate, Department of Radiology, Shore Memorial Hospital, Somers Point

The application of diagnostic ultrasound in obstetrics and gynecology will be discussed and illustrated. Particular emphasis will be placed upon sonic diagnosis of the blighted ovum, placenta praevia, hydatid mole, ectopic pregnancy, hydramnios, hydrocephalus, anencephalus, and fetal death. The role of ultrasound in determination of fetal maturation will be considered. The ultrasonic display of uterine masses, and of ovarian tumors and cysts, will be presented. The ease and safety of this non-invasive method of two and three dimensional imaging of many obstetrical and gynecological conditions will be emphasized.

2:00 p.m. Radiologic Diagnosis of Urologic Injuries Associated with Gynecologic Surgery
ALBERT J. SALZMAN, M.D., Director of Radiology, Atlantic City Hospital, Atlantic City

Review of case material over the last five years at the Atlantic City Hospital will be presented with specific reference to radiologic diagnosis of complications of gynecologic surgery. Illustrative examples of ureteral obstruction, ureterovesical and vesico-vaginal fistulae will be demonstrated. The use of various radiologic procedures including urography, cystography, and vaginography will be presented.

2:30 p.m. Diagnosis and Management of Ureteral Injuries Associated with Gynecologic Surgery
ANTHONY DEL GAIZO, M.D., Assistant Attending in Urology, St. Joseph's Hospital, Paterson; and Clinical Instructor in Urology, New Jersey Medical School, CMDNJ, Newark

Summary not received

3:00 p.m. Business Meeting—Election of Officers (Radiology and Urology)

3:15 p.m. Visit to Exhibits

DINNER-DANCE
Monday, May 14, 1973
Guest Speaker
Dancing
(Tickets at Registration Desk)

RECEPTION
Saturday, May 12, 1973
Cocktails-Buffet
Dancing
(Tickets at Registration Desk)

Monday afternoon, May 14

Otolaryngology Plastic and Reconstructive Surgery

(Cosponsored by New Jersey Academy of Ophthalmology and Otolaryngology and New Jersey Society of Plastic and Reconstructive Surgeons)

1:00 p.m. Plastic Repair of Nasal Defects in the Treatment of Trauma and Neoplastic Disease
MICHAEL LEWIN, M.D., Professor of Plastic Surgery, Albert Einstein College of Medicine; and Chief, Plastic Surgery Division, Montefiore Hospital and Medical Center, New York City

Trauma and ablative surgery of cutaneous malignancies result in tegumental defects of various size, character, and severity of the external nasal surface and/or lining. The damage to the supporting tissue leads to contour deformities and nasal obstruction.

This paper deals with the choice of procedures available to a plastic surgeon in the reconstruction of these deformities. Flaps from contiguous areas or even from distant sites are indicated only when resurfacing with free skin grafts (split, full thickness, or composite) is not adequate to obtain a durable and good cosmetic result.

Septal auricular cartilage or bone is preferable to silastic or acrylic allografts.

1:20 p.m. Aesthetic Rhinoplasty
GEORGE C. PECK, M.D., Associate Professor of Plastic Surgery, Temple University School of Medicine, Philadelphia

The aim of the aesthetic surgeon is to produce a nose that is anatomically normal and aesthetically pleasing. This paper describes a technic that will produce these results. Pre- and post-operative photographs taken over the past fourteen (14) years will be shown.

1:40 p.m. Functional Nasal Surgery
MARK LEVEY, M.D., Otolaryngologist, Saint Barnabas Medical Center, Livingston

The physiology of the nose, which is an integral part of successful rhinologic surgery, is frequently overlooked in discussions related to respiratory function and pathology. There is increasing evidence that upper airway obstruction has definite influence upon pulmonary function.

A thorough familiarity with nasal physiology, and its relationship to altered anatomy, is essential if the rhinologic surgeon is to reconstruct the septum and nasal pyramid. He must have knowledge of surgical procedures that will counteract the pathologic alterations, reverse the deformities, and obtain a physiologic functioning nose.

2:00 p.m. Upper Respiratory Tract Physiology and Its Effect on the Lower Tract

(Speaker to be announced)

2:20 p.m. Discussion

3:00 p.m. Business Meeting—Election of Officers

3:15 p.m. Visit to Exhibits

VISIT THE EXHIBITS

A THREE-WAY TREAT

One of the colorful aspects of our convention is the interesting array of exhibits. This year, as usual, we have three classes—

Informational — Scientific — Technical

The exhibits help to defray the cost of your Annual Meeting. Take time to visit each booth. There is a wealth of new information available. Representatives will be present to answer your questions.

1973 Annual Meeting

INFORMATIONAL EXHIBITS

Saturday, May 12—12 noon to 5 p.m.
Sunday, May 13—9 a.m. to 5 p.m.
Monday, May 14—9 a.m. to 5 p.m.

Academy of Medicine of New Jersey I-200

Bloomfield, Leo H. Siegel, M.D. President

The exhibit will outline the activities of the Academy of Medicine in providing continuing education programs for the physicians of New Jersey during the past year.

Alcoholism Control Program I-213

New Jersey State Department of Health, Trenton

Basic theme of the exhibit is: What can you, as a private physician, do if someone approaches you with an alcohol problem? Printed material, developed especially for physicians by the AMA and the National Council on Alcoholism, will be distributed to those visiting our booth. Also available will be a list of referral and treatment sources for alcoholics in New Jersey.

American Trauma Society I-214 Chester, Pennsylvania

This is a tax-exempt, volunteer health organization working to save lives and reduce disabilities from accidents through a program of education, training, research, and development of better emergency services.

Children's Seashore House I-204

Atlantic City

Children's Seashore House is dedicated to short term, intensive rehabilitation of children with physical handicaps and chronic illness. It is the oldest institution of this kind in the United States (1873). We emphasize the total approach to the child, his or her family, and environment. Toward this end we have, as part of our team, physicians, consultants, nursing-child care, play therapists, school teachers, speech, physical and occupational therapists, clinical psychologists, and psychiatrists. Details will be shown in our exhibit slide presentation at the booth.

College of Medicine and Dentistry of New Jersey, Newark I-209

Purpose of this exhibit is to inform interested persons about the College and its programs, admissions, research, curricula, and so on. The booth will be attended during prime hours by members of the faculty of the College's four schools.

Emergency Medical Services I-211

New Jersey State Department of Health, Trenton

Information will be available on the State-Accredited, 71-hour Emergency Medical Technician Training Program.

JEMPAC-AMPAC I-210

Jersey Medical Political Action Committee-American Medical Political Action Committee

JEMPAC-AMPAC utilizes the bipartisan approach to educating the physician as to his proper and potential role on the political scene.

Medical and Legal Role in the Drug Abuse Problem I-202

Division of Narcotic and Drug Abuse Control, New Jersey State Department of Health; and MSNJ's Committee on Drug Abuse, Trenton

The exhibit will explain the medical and legal role of the physician in dealing with the drug abuse problem.

Morris Hall Health and Rehabilitation Center I-207

Lawrenceville

Morris Hall Health and Rehabilitation Center is a 209-bed Special Hospital for Rehabilitation and Post-Hospital Extended Care. It is located on Route 206 in Lawrenceville, New Jersey, between Trenton and Princeton. The exhibit shows pictures illustrating facilities and has available a brochure for distribution explaining the Center in detail.

New Jersey Community Study on Pesticides I-215

New Jersey State Department of Health, Trenton

A continuing study is displayed of the possible long-term effects of pesticides on human health. Acute poisonings are also studied insofar as clues may be provided for further study. There is a need to determine the effects of single and mixed pesticide intakes, for effects of potentiation or antagonism.

Occupational groups exposed to pesticides are under study, and some are found to be under greater health risk. The project will undertake a broader health survey in this area, in order to provide morbidity statistics related to pesticides.

Printed material of interest to physicians, giving diagnostic and therapeutic information, will be available.

New Jersey Home Health Agency Assembly 205

Red Bank

Displays will describe services provided by a community and hospital-based Home Health Agency.

New Jersey Medicaid I-212

Division of Medical Assistance and Health Services, Department of Institutions and Agencies, Trenton

Here is a three-panel exhibit, illustrating the New Jersey Medical Assistance Program, and providing facts and figures in graphic form regarding the specific area of physician participation throughout the State.

The Pediatric Nurse Practitioner 208

College of Nursing, Rutgers University, New Brunswick; and College of Medicine and Dentistry of New Jersey at Newark

Purpose of the exhibit is to describe a program to educate registered nurses as PNP's, to function in an expanded role to provide health services for infants and children in collaboration with physicians.

The exhibit will show the background of the PNP concept, the curriculum, the functions of the PNP in child care and the kinds of services provided by PNP's in child health settings. The conclusion is that the Pediatric Nurse Practitioner can make a real contribution to the care of children and their families.

Society for the Relief of Widows and Orphans of Medical Men 201

Belleville

The Widows and Orphans Society is a non-profit, voluntary, "helping-hand" organization founded and operated by New Jersey physicians to provide immediate financial assistance to families of deceased members. There are 1,500 members. The Society's annual meeting will be held during the MSNJ convention.

Visiting Homemaker-Home Health Aide Service of New Jersey I-203

Trenton

The Visiting Homemaker-Home Health Aide Service is a local non-profit agency sponsored by the New Jersey State Department of Health as a community health agency. Each agency is a member of the Visiting Homemaker Association of New Jersey, Inc., with headquarters in the Department of Health, Trenton. There are presently 24 such agencies serving the state of New Jersey. Literature explaining the services of the agencies will be available.

Water Pollution I-206

Essex County Medical Society Water Pollution Committee, East Orange

Through mixed media the exhibit will discuss water pollution as it affects Jersey shores and inland water bodies and how man is responsible for the current situation.

1973 Annual Meeting

SCIENTIFIC EXHIBITS

Saturday, May 12—12 noon to 5 p.m.
Sunday, May 13—9 a.m. to 5 p.m.
Monday, May 14—9 a.m. to 5 p.m.

CMDNJ-Rutgers Medical School S-112

W. Hoyt Oliver, Ph.D., Community Health Education, CMDNJ-Rutgers Medical School, Piscataway

Purpose of this exhibit is to focus on the importance of education in dealing with patients, staff, and community groups. Illustrated is a program involving certain hospitals working with Rutgers Medical School, Department of Community Medicine to develop planned, coordinated educational programs for patients, staff, and community. The viewer should conclude that this activity is needed and that more hospitals should be involved.

Closed Circuit Television for the Partially Sighted S-103

Gerald Fonda, M.D. and Henry Thomas, M.S., Saint Barnabas Medical Center, Livingston

Closed Circuit Television, for use by the partially sighted, consisting of 23 inch monitor, camera, and zoom lens, will be demonstrated.

A Community Hospital's Approach to Computer Image Enhancement S-107

David I. Kingsley, M.D., Franklin D. Wald, M.D, Leopold S. Kaplan, M.D. and Richard S. Pollack, M.S., John F. Kennedy Community Hospital, Edison

Use of a small, hard-wired computer is explored at a community hospital. The 4096 channel analyzer is interfaced with a scintillation camera. Images from the scintillation camera are digitized and stored in the memory matrix. They are manipulated by front-end controls and the degree of data manipulation is controlled by the operator. Its capabilities include contrast enhancement, lower level and upper level subtraction, algebraic data subtraction, and addition and quantification of areas of interests. A light pen may be used to analyze specific irregular areas. Over the past year the computer has been used in subtraction of the liver image in pancreatic scanning, enhancement of placental scintiphotos, and quantitative analysis of specific image areas. Results are presented.

The instrument will be demonstrated as to both its capabilities and simplicity of operation. We have been able to obtain more information and data of improved diagnostic quality than was obtainable with the scintillation camera alone. The expense is less than that of a conventional programmable computer.

Electron Micrographic Montages S-108

Grace C. H. Yang M.S., CMDNJ-Rutgers Medical School, Piscataway

The exhibit displays: (1) a whole glomerulus from a patient with lupus nephritis, (2) islet of Langerhans from head of pancreas following partial pancreatectomy, (3) epidermolysis bullosa simplex, (4) normal pancreas removed surgically, and (5) rat papilla—effect of aspirin and phenacetin.

Hereditary Retinal Diseases S-109

George M. Stephens, M.D., Alfonse Cinotti, M.D., Joseph Patti, M.D. and Geraldine Kiebel, Ph.D., College of Medicine and Dentistry at Newark; and Veterans Administration Hospital, East Orange

Purpose of this exhibit is to demonstrate a variety of retinal hereditary diseases and to show that at the present time, using modern diagnostic procedures, some can be prevented and others can be treated to slow the progress of the disease.

Mass Screening for Colo-Rectal Cancer S-114

James B. Hastings, M.D., Cancer Committee, Mercer County Medical Society, Princeton

An innovative screening program for detection of colo-rectal cancer was conducted in a county of 300,000. In a single day 3,447 people appeared in 15 centers for a rectal exam and received a kit with dietary instructions and three guaiac test slides. Of the 2,631 who returned their slides, 159 showed a positive test for blood in at least one of three slides. Among these 159 people five cancers were discovered and treated, all asymptomatic, all operable, and three considered cured.

Medicine and Dentistry for the Handicapped S-113

Louis Pirone, M.S., Jacyntho DaSilva, M.D., Cleo Palmer, D.D.S. and Robert J. Fischer, D.D.S., Woodbridge State School, Woodbridge; and New Jersey State Department of Institutions and Agencies, Trenton.

Through television tape, photographs, and literature, the medical-dental care of the handicapped within the Department of Institutions and Agencies will be demonstrated. Emphasis is on the medical preoperative, operative, and postoperative considerations of the physically and neurologically impaired patient. Personnel will be available for discussion.

Modes of Presentation of Cystic Fibrosis S-104

Harold Grotsky, M.D., Newark Beth Israel Medical Center

Purpose of this display is to acquaint physicians with the more unusual ways in which symptoms of cystic fibrosis are exhibited. This will be accomplished by the use of pictures, displays, and text.

The Multidisciplinary Approach to the Treatment of Cancer S-102

Frederick B. Cohen, M.D., Alan J. Lippmann, M.D., and Jack S. York, M.D., Newark Beth Israel Medical Center

Here is a graphic and schematic presentation of the multidisciplinary approach to the treatment of cancer, emphasizing the interaction of the medical, surgical, and radiologic specialties. As an example, the course of a patient with breast cancer will be followed. Both visual and audio technics will be used. Also, an outline of a hospital tumor board conference will be demonstrated.

Parotid Tumors S-106

Myron J. Shapiro, M.D., United Hospitals Medical Center, Newark

Here shown is a three-panel exhibit describing the various types of tumors which affect the parotid gland. Diagnosis, treatment, and prognosis will be discussed and illustrated using the experiences of the Black-Sevenson Clinic and patients in private practice.

Prevention of Late Sudden Death in Myocardial Infarction S-110

James J Coyne, M.D., James A. Hogan, M.D., William A. Leff, M.D. and Harvey E. Nussbaum, M.D., Saint Barnabas Medical Center, Livingston

The national reduction of mortality in myocardial infaction through continuous electrocardiographic monitoring has been well documented. Late sudden death, however, after discharge from the Cardiac Intensive Care Unit, continues to range somewhere between 7 and 32 per cent. This exhibit demonstrates the elimination of late sudden death in myocardial infarction through the benefit of continuous in-hospital electrocardiographic monitoring, utilizing a CICU (12 monitor beds) and an intermediate CICU (46 monitor beds).

Strep Disease Control Program S-105

CMDNJ-Rutgers Medical School, Piscataway

Purpose of the exhibit is to inform physicians and school nurses about a simple and inexpensive school-centered streptococcal disease prevention and control technic—from throat culture to plating the specimen to reading specimen 24 hours later—all done in school nurse's office.

School nurses are capable, with proper training, to effect streptococcal disease prevention and control, utilizing throat cultures, urine compliance tests, and tracing of contacts. All detected streptococcal infections are referred for treatment to the family physician.

Toward the Better Control of Breast Cancer S-111

John F. W. King, M.D., American Cancer Society, New Jersey Division, Inc., Union

Here will be pointed out to the general practitioner and the specialist the unchanging survival rate from breast cancer, and the need for earlier diagnosis as the only method presently available to reduce mortality from this disease. Mammography and thermography, as means to accomplish earlier diagnosis, is emphasized as the ideal breast cancer detection program.

Xeroradiographic Determination of Pre- and Post-Operative Charnley Low-Friction Total Hip Replacement S-101

William E. Mattey, M.D. and Saul I. Firtel, M.D., Saint Barnabas Medical Center, Livingston

Illustrated here are the indications and postoperative complications of Charnley low-friction total hip replacement, by means of xeroradiography and conventional radiography. A comparative analysis of both radiographic technics is presented.

Scientific Sections

Attend the scientific section of your choice.

See pages 282-292 for complete programs.

1973 Annual Meeting

TECHNICAL EXHIBITS

Saturday, May 12 — 12 noon to 5 p.m.
Sunday and Monday, May 13 and 14 — 9 a.m. to 5 p.m.

In Appreciation

The Medical Society of New Jersey is pleased to recognize, through their generous contributions, the following official patrons of the educational programs presented through the scientific sessions:

Geigy Pharmaceutical
Mead Johnson Laboratories
Upjohn Company
Johnson and Johnson
Reed and Carnick
Knoll Pharmaceuticals Company
A. H. Robins Company
Winthrop Laboratories

A.D.T. #29

Information will be available on residential burglar and fire alarm systems.

American Association of Medical Assistants State of New Jersey — Message Center

Informational brochures describing the aims and purposes of AAMA, its educational opportunities, and its certification program will be available for distribution. Messages for doctors in attendance at the meeting will be relayed through this booth.

Ames Company, Division Miles Laboratories, Inc. #5

Ames Company will exhibit and discuss biological and chemical information systems for use in the physician's office laboratory.

Armour Pharmaceutical Company #1

You are invited to visit the Armour Pharmaceutical Company booth where Thyrolar® (Sodium Lithyronine, T_3, and Sodium Levothyroxine, T_4) and Nicobid® (Niacin), are the featured products. The latest product information is available at the booth upon request.

Astra Pharmaceutical Products, Inc. #7

Information and descriptive literature pertaining to Xylocaine® (lidocaine), Citanest® (prilocaine), local and topical anesthetics, Jectofer® (iron sorbitex) intramuscular iron, and Xylocaine® HCl for intravenous use in the treatment of cardiac arrhythmias will be available.

Automated Medical Laboratories, Inc. #26

Clinical diagnostic and pathology laboratory tests and services will be presented.

Ayerst Laboratories #39 & #40

Ayerst Laboratories is pleased to offer you (or a member of your family, with your permission) a complimentary Cholesterol/Triglyceride determination. For an accurate determination, blood should be drawn after a 12-14 hour fast. We would like to remind you not to partake of food or drink after dinner the evening before the morning that you plan to have your personal Cholesterol/Triglyceride determination blood sample taken.

Bache and Company, Inc. #37

Founded in 1879, Bache and Company is the second largest brokerage firm in the United States. As a member of the New York Stock Exchange, the American Stock Exchange, and other leading stock and commodity exchanges, Bache offers its clients the broadest possible range of investment service and guidance. The following are some of the products and services available through our worldwide facilities: Block Distributions, Block Trading, Commodity Futures, Common and Preferred Stocks, Corporate and Convertible Bonds, Corporate Financing, Foreign Securities, Government and Agency Bonds, Institutional Bonds, Investment Supervision, Mergers and Acquisitions, Monthly Investment Plans, Mortgage-Backed Securities, Municipal Bonds, Mutual Funds and Programs, Over-the-Counter Securities, Payroll Deduction Plans, Pension and Welfare Plans, Portfolio Analysis, Put and Call Options, Research, Tax-Sheltered Investments, Technical Market Analysis, and Underwritings and Private Placements.

E. & W. Blanksteen Agency, Inc. #11 & #12

E. & W. Blanksteen Agency, Inc. are official brokers for The Medical Society of New Jersey for Accident and Health, Major Expense, High Limit Accident, Term Life Insurance, Hospital-Money, the new Overhead Expense Plan, EPIC Auto Insurance, HR-10 Keogh Retirement Plan, and Corporate Master Retirement Plan.

All these programs provide exceptional value for the members because of the group purchasing power of the State Society.

Joseph A. Britton Agency #10

This is the agency which provides officially endorsed professional liability insurance (all forms).

Communications Design, Inc. #34

Telephone and intercom equipment for the physician's use will be on display.

Dow Diagnostics—The Dow Chemical Company #13

Representatives will be available to discuss the chemistries and equipment offered by Dow Diagnostics.

Elmed Inc. #49

Modern electro-surgical units for office, clinic, and operating room; micro forceps; and specialty instruments will be on display.

Group Health Inc. #9

Representatives will be available to answer your questions and distribute literature offered by Group Health, Incorporation.

Health Management Systems, Inc. #25

Presented will be the T.I.M.E. System (Technics To Improve Management Efficiency)—a new discipline of integrated educational technics and practical business products designed to increase medical office productivity. Objective is to enable the physician to delegate procedures to qualified medical assistants and devote more time to the practice of medicine.

Hoechst Pharmaceuticals, Inc. #36

Representatives at Hoechst booth will be happy to discuss their products with particular application to the physician's individual practice. Feature is Lasix® (furosemide), Surfak®, and Doxidan®.

Hospital Book Service, Inc. #48

As a direct and personalized service to the medical profession, Hospital Book Service, Inc., offers medical books from four major publishers—Appppleton-Century-Crofts, Grune and Stratton, Little, Brown and Company, and Williams and Wilkins. Our sales representative will place the order; the book(s) are sent directly from the publisher and billing to the customer is made within 30 days.

Lakeside Laboratories, Inc. #19

Lakeside Laboratories' exhibit will feature Cantil®, Imferon®, Ircon®, Ircon-FA®, Mercuhydrin®, Metahydrin®, Metatensin®, Norpramin®, Triclos®, and the Learning Systems on Depression and Iron.

David and Charles Levinson Medical Specialties #31

On display will be the following Medco Products: Medco Dublett, dual ultrasound is presented with palm fitted transducers. Trigger points and symptom areas are treated with two sound heads.

Medco-Sonlator Twin. Here is a diagnostic and therapeutic instrument, combining synchronized and pulsed ultrasound with smooth Medcolator current in continuous, pulse and surge settings.

Medcotherm offers a combination of neuromuscular stimulation and moist heat thermostatically controlled and blended with reciprocating and surging settings.

Medcolator, Models K and G, with straight or interrupted galvanic currents, are displayed.

Martin Short Wave therapy provides automatic tuning and deep penetration.

Eli Lilly and Company #14

You are cordially invited to visit the Lilly exhibit. Our sales representatives will welcome your questions about our pharmaceutical products.

Marion Laboratories, Inc. #8

Representatives will be available to answer your questions about the various ethical pharmaceuticals offered by Marion Laboratories.

Medical Plastics Laboratory, Inc. #20

Life-sized, three dimensional reproductions produced by Medical Plastics Laboratory have proved to be among the finest practice aids ever offered to the medical, dental, legal, and teaching professions.

Doctors use them to save time in explanations of treatment and therapy, aiding the patients to understand problems involved.

Medical Plastics Laboratory is the only company in the world today that molds skeletal reproductions from the actual bone, insuring the faithful duplication of each bone.

Medical-Surgical Plan of New Jersey #17

Blue Shield welcomes this opportunity to discuss with New Jersey physicians recent changes in fee schedules and benefits. Blue Shield is ever mindful that its participating physicians have made the Medical-Surgical Plan possible, and will welcome discussions concerning these or other Plan matters.

New Jersey Bell Telephone Company #23&#24

Telephone services and equipment available for the medical field will be illustrated and explained at this booth.

Organon Inc. #32

Featured here will be Durabolin® and Hexadrol®. Representatives will be available to answer your questions.

Ortho Pharmaceuticals #15

Ortho Pharmaceuticals is proud to present its complete line of medically accepted products for the control of conception. Also on display will be our well-known products for the treatment of various forms of vaginitis. Your questions are welcome.

Parke, Davis and Company #28

Representatives will discuss selected pharmaceutical products at the Parke-Davis booth.

PRO Fund, Inc. #2

Representatives will be present to discuss the Keogh Programs, Professional Corporations, and mutual funds available.

Prudential Insurance Company of America Coffee Lounge

Prudential is the contractor with the Federal Government for Medicare Part B in New Jersey, North Carolina, and Georgia, and Part A in New Jersey; also with the State of New Jersey for Medicaid.

A. H. Robins Company #38

You are cordially invited to visit the A. H. Robins exhibit and meet our representatives who will welcome the opportunity to discuss products of interest with you.

Roche Clinical Laboratories #21 & #22

Roche Clinical Laboratories presents a photographic display—Clinical Laboratory Testing in Diagnosis—which will enable you to evaluate your knowledge of common laboratory procedures and their clinical significance. Representatives will be in attendance to discuss the services available.

Sandoz Pharmaceuticals #18

Sandoz Pharmaceuticals cordially invites you to visit our display where we are featuring Mellaril®, Hydergine®, and Fiogesic®. Any of our representatives in attendance will gladly answer questions about these and other Sandoz products.

W. B. Saunders Company #30

Saunders will have on display a complete line of their medical books, including many new titles and new editions published since last year's meeting.

Schering Laboratories #16

Schering's exhibit is offering product information on Garamycin® injectable, Etrafon®, and Valisone® aerosol. Order forms for obtaining various services and teaching aids at no cost are also available.

Searle Laboratories #35

You are cordially invited to visit the Searle booth where our representatives will answer any questions regarding Searle Products of Research. Featured will be information on Ovulen®, Demulen®, Enovid®, Aldactazide®, Flagyl®, Lomotil®, Pro-Banthine®, Metamucil® and other drugs of interest.

Donald F. Smith and Associates— Blue Cross/Blue Shield Programs #4

Blue Cross/Blue Shield programs, tailored to provide the additional benefits required to meet the needs of physicians and their dependents, will be presented. Donald F. Smith and Associates of Princeton provides answers to your questions and help with your claims problems.

E. R. Squibb and Sons, Inc. #33

E. R. Squibb and Sons, Inc. are pleased to present a film review of factual reports on current topics of medical interest and research. They include "Drug Abuse," "Aerospace Medicine," "Heart Transplantation," and "Congestive Heart Failure."

Stuart Pharmaceuticals, Division of ICI America, Inc. #44

Stuart Pharmaceuticals' booth consists of graphic panels, product samples, and literature describing some or all of the following products: Mylanta®, Chewable Sorbitrate®, Sorbitrate® Sublingual and Oral, Kinesed®, Stuartnatal™ 1+1.

VISIT THE EXHIBITS

46th ANNUAL MEETING

Woman's Auxiliary to The Medical Society of New Jersey

Saturday through Tuesday
May 12-15, 1973

Chalfonte-Haddon Hall
Atlantic City

Schedule of Events

Saturday, May 12, 1973

10:00 a.m. to 4:30 p.m.—Sale of dinner-dance tickets
MSNJ Registration Desk
(Exhibit Hall, Lobby Floor, Haddon Hall)

12:00 noon to 4:30 p.m.—Registration
(Lobby Floor, Haddon Hall)

1:00 p.m. to 4:30 p.m.—Registration for Art Show
(Lobby Floor, Haddon Hall)

*2:00 p.m.—Auxiliary President's Report to MSNJ House of Delegates
(Windsor Room, Lobby Floor, Haddon Hall)

*7:30 p.m.—Reception-Buffet Dinner
A special invitation is extended to Auxiliary members (tickets may be purchased at MSNJ Registration Desk —$15 per person)
(Vernon Room, Lounge Floor, Haddon Hall)

Sunday, May 13, 1973

9:30 a.m. to 4:30 p.m.—Registration
(Lobby Floor, Haddon Hall)
Tickets for Tea and Fashion Show

10 a.m. to 4:30 p.m.—Sale of dinner-dance tickets
MSNJ Registration Desk
(Exhibit Hall, Lobby Floor, Haddon Hall)

10:00 a.m.—Art Exhibit
County Press and Publicity Books Exhibit
County Activities Pictorial Display
(Lobby Floor, Haddon Hall)

10:00 a.m.—Pre-convention Board Meeting
Continental Breakfast (complimentary for those attending session)
(Navajo Room, 15th Floor, Haddon Hall)

12:00 noon—Fellowettes' Luncheon
(Blue Room, Office Floor, Chalfonte)

2:30 p.m.—Tea and Fashion Show
(Vernon Room, Lounge Floor, Haddon Hall)
All doctors' wives and guests cordially invited.

*4:30 p.m.—Golden Merit Award Ceremony
Windsor Room, Lobby Floor, Haddon Hall

*6:30 p.m.—Reception honoring President-elect Boylan
Auxiliary members are cordially invited to attend (Admission by badge)
(Pennsylvania Room, Lounge Floor, Haddon Hall)

Monday, May 14, 1973

8:15 a.m. to 4:30 p.m.—Registration
(Lobby Floor, Haddon Hall)

8:15 a.m. to 9:00 a.m.—Continental Breakfast—complimentary:
(Hallway, 13th Floor, Haddon Hall)

9:00 a.m. to 12:30 p.m.—General Session
(West Room, 13th Floor, Haddon Hall)

9:00 a.m. to 4:30 p.m.—Sale of dinner-dance tickets
MSNJ Registration Desk
(Exhibit Hall, Lobby Floor, Haddon Hall)

1:00 p.m.—Annual President's Luncheon
(Pennsylvania Room I, Lounge Floor, Haddon Hall)
All doctors' wives cordially invited

*8:00 p.m.—Dinner-Dance
(Pennsylvania Room, Lounge Floor, Haddon Hall)

Tuesday, May 15, 1973

8:00 a.m.—Breakfast for County Presidents
(Mandarin Room, 13th Foor, Haddon Hall)

10:30 a.m.—Post-convention Board Meeting
(West Room, 13th Floor, Haddon Hall)

Convention Committee

Chairman—Mrs. James Brennan
Co-Chairman—Mrs. Frank Doggett, Jr.

*MSNJ events to which Auxiliary members are cordially invited.

ROOM RESERVATIONS

Complete and mail this form for your room reservation

207th ANNUAL MEETING—THE MEDICAL SOCIETY OF NEW JERSEY
May 12-15, 1973

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BRINGS DOWN BLOOD PRESSURE IN HYPERTENSION*

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***Indications:** Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome; steroid-induced and idiopathic edema; edema resistant to other diuretic therapy. Also, mild to moderate hypertension.

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Warnings: Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired. Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (> 5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently—both can cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe patients on 'Dyazide' regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

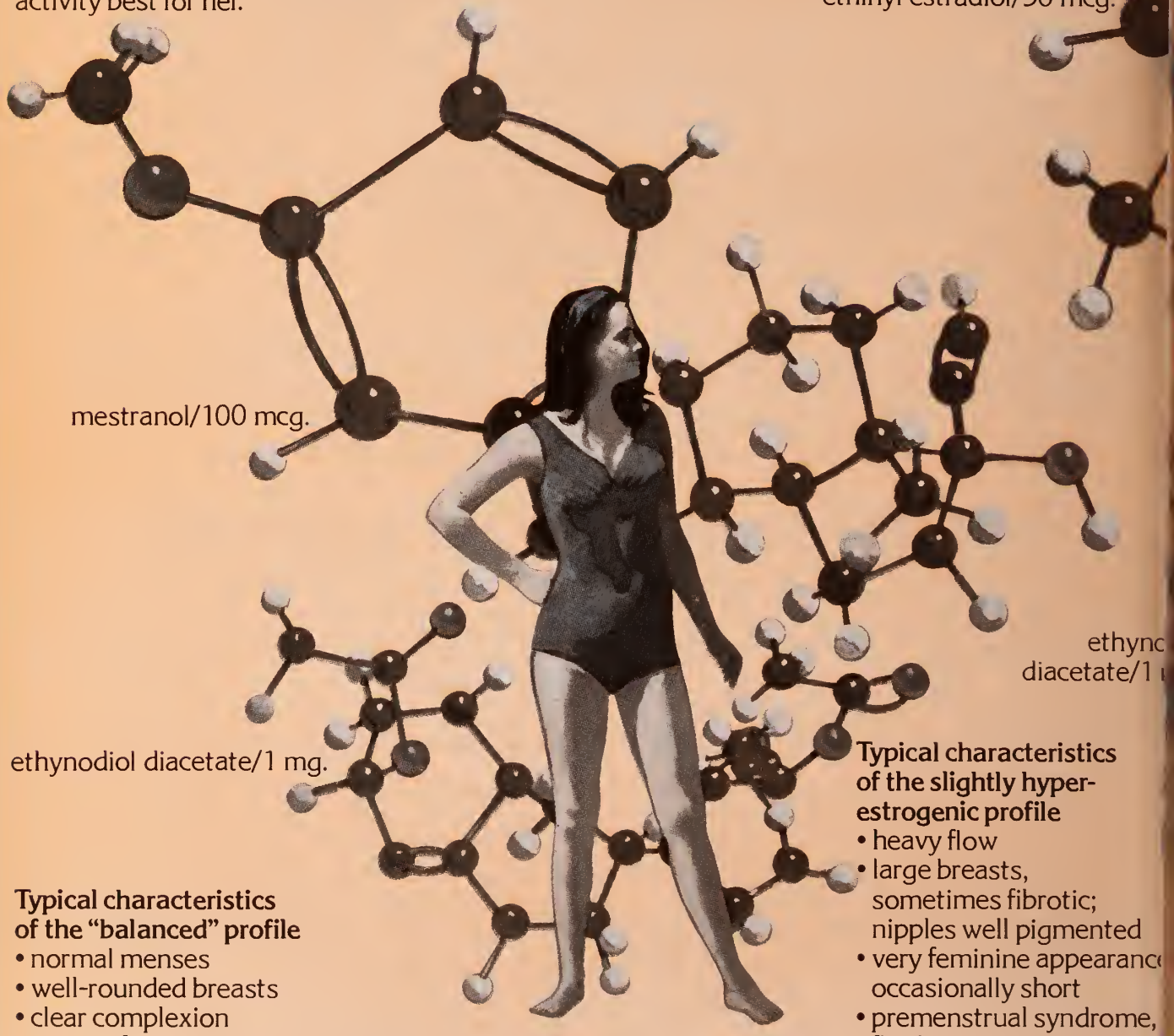
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All steroid molecules are not the same... in their activity. In prescribing birth-control pills, estrogen/progestogen activity is more important than milligrams. The woman's hormone profile often indicates the activity best for her.

ethinyl estradiol/50 mcg.



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ethynodiol diacetate/1 mg.

Typical characteristics of the "balanced" profile

- normal menses
- well-rounded breasts
- clear complexion
- normal figure with normal secondary sex characteristics
- normal cytohormonal pattern

This "center spectrum" pill has had excellent user acceptance for over seven years.

Typical characteristics of the slightly hyperestrogenic profile

- heavy flow
- large breasts, sometimes fibrotic; nipples well pigmented
- very feminine appearanc occasionally short
- premenstrual syndrome, fluid retention
- tendency to uterine fibroids
- high pyknotic index

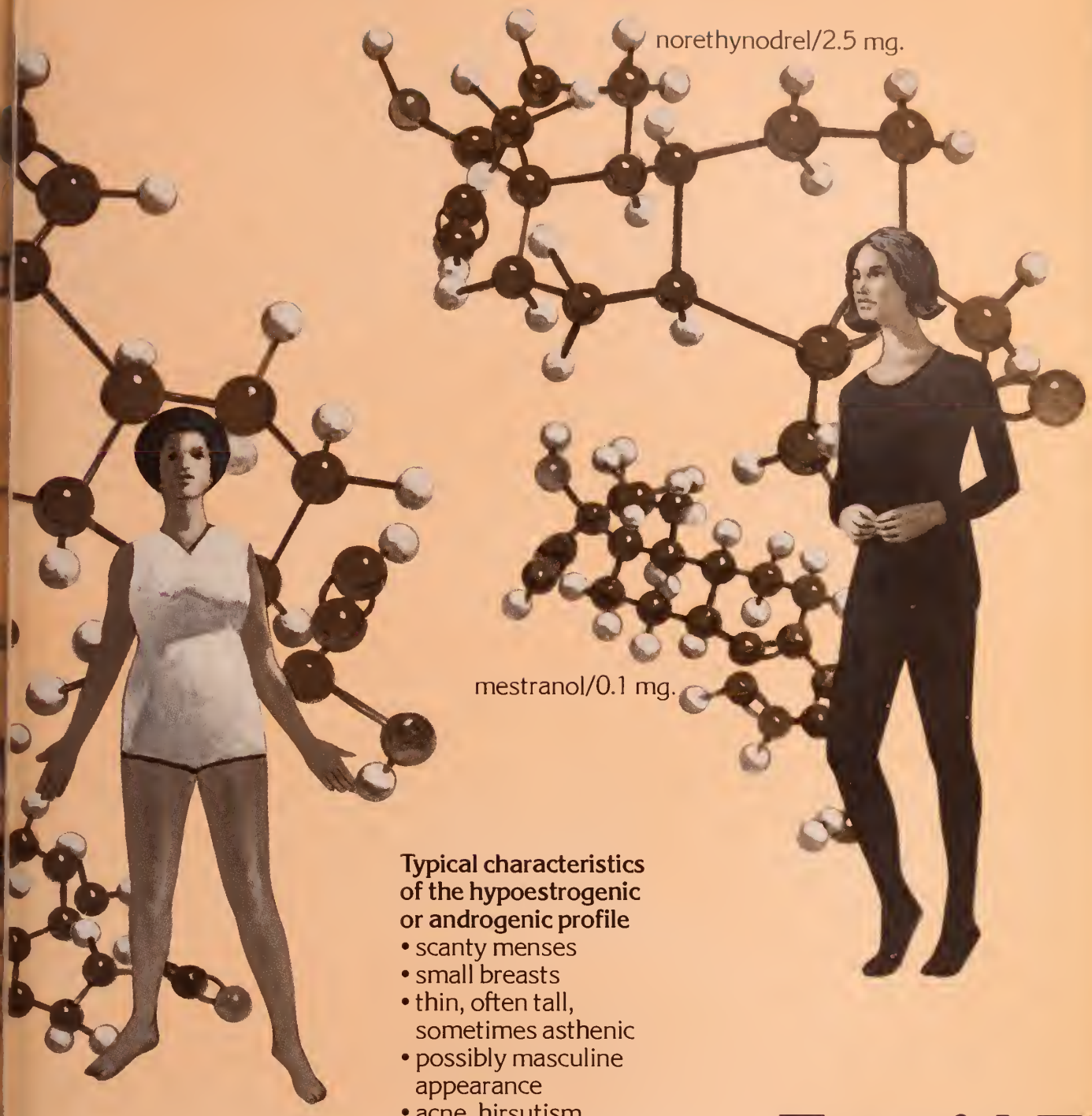
This formulation, which ha less estrogenic activity and a moderate progestogen dominance, may be a good beginning.

Ovulen®

Available in 20-, 21- and 28-pill schedules
Each white tablet contains: ethynodiol diacetate 1 mg./mestranol 0.1 mg.
Each pink tablet in Ovulen-28® is a placebo containing no active ingredients.

for the majority of women... when centrally balanced activity is preferred

For brief summary of prescribing information, please see next page.



Demulen®

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Each white tablet contains: ethynodiol diacetate 1 mg./ethinyl estradiol 50 mcg. Each pink tablet in Demulen-28* is a placebo containing no active ingredients.

well suited to most women when low estrogenic activity and moderate progestogen dominance are preferred

Typical characteristics of the hypoestrogenic or androgenic profile

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- possibly masculine appearance
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Enovid-E®

Available in 20- and 21-pill schedules
Each tablet contains: norethynodrel 2.5 mg./mestranol 0.1 mg

a clear choice for women when estrogen dominance and no androgenic activity are preferred

*Of all the progestogens, norethynodrel most resembles the molecular structure of the estrogens. It has the weakest progestational activity of any progestogen in a combination pill.

Ovulen®

Each white tablet contains:
ethynodiol diacetate 1 mg./mestranol 0.1 mg.

Demulen®

Each white tablet contains:
ethynodiol diacetate 1 mg./ethinyl estradiol 50 mcg.

Each pink tablet in Ovulen-28® and Demulen-28® is a placebo, containing no active ingredients.

Actions—Ovulen and Demulen act to prevent ovulation by inhibiting the output of gonadotropins from the pituitary gland. Ovulen and Demulen depress the output of both the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH).

Special note—Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication—Ovulen and Demulen are indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain[1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Ovulen and Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Ovulen or Demulen. Therefore, if such tests are abnormal in a patient taking Ovulen or Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations pre-existing uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Ovulen or Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Ovulen or Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Ovulen or Demulen may mask the onset of the climacteric. The pathologist should be advised of Ovulen or Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

References: 1. Royal College of General Practitioners: Oral Contraception and Thrombo-Embolic Disease, J. Coll. Gen. Pract. *13*:267-279 (May) 1967. **2.** Inman, W. H. W., and Vessey, M. P.: Investigation of Deaths from Pulmonary, Coronary, and Cerebral Thrombosis and Embolism in Women of Child-Bearing Age, Brit. Med. J. 2:193-199 (April 27) 1968. **3.** Vessey, M. P., and Doll, R.: Investigation of Relation Between Use of Oral Contraceptives and Thromboembolic Disease. A Further Report, Brit. Med. J. 2:651-657 (June 14) 1969. **4.** Sartwell, P. E.; Masi, A. T.; Arthes, F. G.; Greene, G. R., and Smith, H. E.: Thromboembolism and Oral Contraceptives: An Epidemiologic Case-Control Study, Amer. J. Epidem. 90:365-380 (Nov.) 1969.

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Actions—Enovid-E acts to prevent ovulation by inhibiting the output of gonadotropins from the pituitary gland. Enovid-E depresses the output of both the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH).

Indication—Enovid-E is indicated for oral contraception.

The *Special Note, Contraindications, Warnings, Precautions* and *Adverse Reactions* listed above for Ovulen and Demulen are applicable to Enovid-E and should be observed when prescribing Enovid-E.

Enovid-E®

brand of norethynodrel with mestranol

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Where "The Pill" Began

Special Article

Peer review is not a self-starting or self-operating mechanism. It needs the help of all of us.

Responsibilities for Peer Review*

James A. Rogers, M.D., Paterson

The Medical Society of New Jersey has established a special peer review committee to study this matter and to present a plan of action. This Committee consists of two representatives from each of the five judicial districts in our state. The Committee is studying the material on peer review, and reviewing programs suggested in other states. In the near future guidelines will be prepared by the Committee for New Jersey. It is the aim of this special committee to develop such guidelines for your consideration. They will be flexible so that they may be adaptable to any county in this state. It is, after all, at the County Medical Society level where the action is, and where the action must take place. Only at this level can one properly assess the status of peer review as it exists in your community. Where necessary, adjustments to your activities may be made as a result of demonstrated needs.

Your State Society will encourage and will support your county society in establishing peer review mechanisms which will involve the providers of health care. Under consideration by your state committee will be the following:

1. In principle, it wishes to encompass:

a. A program which will review physicians' services by his colleagues and by his colleagues alone.

b. The programs will determine: (1) the quality of care rendered; (2) the utilization of facilities and of personnel, and (3) the propriety of charges submitted for such professional services rendered.

2. Purpose of peer review is the evaluation of the quality of medical care. It relates to the capabilities of the providers and also points out the aspects of educational needs. As a result of medical audits—the evaluation of services and utilization of resources—deficiencies in medical education, through performance, are noted. They may represent the individual physician's profile, the hospital medical staff profile, or even the community medical staff profile. It is from an examination of this information that deficiencies and educational needs are demonstrated. It may also demonstrate that perhaps no deficiencies may be present.

The purpose of peer review is *not* punitive. Its purpose is to recognize the rights of the physician, as well as the rights of the purchaser or the consumer of medical care, related to reasonable values for monies expended. Evaluation or any action on peer review must be on the local (county society) level. It could well be that in some areas of the state, two counties may join in establishing a peer review mechanism. Adjudication regarding peer review examination should also remain on a local level. The decisions of the local peer review committee shall stand unless challenged by any party which has a valid interest.

Should it be necessary to use an appeal mechanism, a hearing may be held at the judicial district level. It is hoped that definite time limits may be established for this appeal. It is suggested that the judicial district appeal body consist of members of The Medical Society of New Jersey, maintaining an office or residence in the judicial district concerned. It is further suggested that this body be appointed on a rotating basis. This should be established by the Board of Trustees of

*Presented to the Morris County Medical Society, January 20, 1972. Dr. Rogers is First Vice-President and Chairman of the Committee on Medical Education of The Medical Society of New Jersey.

The Medical Society of New Jersey. The peer review mechanism must be separate from the judicial council mechanism, for it is not intended to pre-empt the function of individual patient complaints concerning professional practices from such judicial review.

3. The peer review mechanism at the local or judicial district level may institute a complaint under the judicial mechanism, if a violation of professional ethics or if a serious breach of professional conduct is evident. It is hoped that the recommendations will also provide for dealing with physicians who are non-members of The Medical Society of New Jersey. In this case, it may be that some such cases would have to be referred to the New Jersey State Board of Medical Examiners.

Final guidelines to be established by this committee have not been formalized, and what I am giving you now must be considered tentative and in no way the final decision of the committee. Each county society should appoint a local committee. It should include a representative from each of the specialties. This must be the nucleus of such an established peer review unit. It is suggested that representatives, perhaps of the various third party payers, be invited as consultants, when needed, to peer review activities.

Confidentiality of patients' files must be protected, and must be secured from scrutiny by anyone other than committee members. It is important at this time to consider changes in the provision of health care that will face us in the possible near future. I am referring to such things as HMO's, Foundations, Group Practice, and the like. We must adapt ourselves to these situations and be ready to adjust our peer review mechanism to these changes. Perhaps an annual re-evaluation of our peer review approach should be made. From this, recommendations which would keep us abreast of current practices in the delivery of health care can be made, so that peer review may remain an effective system.

Such matters as out-and-out fraud are not within the province of peer review, for this is dealt with by other branches of our judicial mechanism.

Summary

(1) Peer review is for all physicians and not for a few.

(2) Health providers and third party payers must give a firm commitment to the concept of peer review, for this offers the only effective way of guaranteeing the efficient use of our resources and the provision of quality medical care at a reasonable cost.

(3) The action is at the community medical society level, and it is only proper that it is here that physicians should assess the present status of peer review of their colleagues in their own county. Their activities should include quality review, quantity review, and claims review.

(4) The State Society should support the county in establishing peer review mechanisms, and assist smaller areas to this end.

(5) Peer review committees should avail themselves of the expertise, through consultation services, of all branches of the special societies, who have an equal responsibility and obligation on the local level to support such activities. That consultation should also be sought with third party payers, if and when indicated.

The AMA probably has a greater responsibility in this over-all development of peer review. It could serve a real function in coordinating efforts made by local societies in establishing a peer review mechanism. It could collect information from all areas involved in peer review. As a result of this feedback mechanism, it could more clearly determine, on a national level, what progress has been made in this direction, and what problems various county societies, as well as state societies, are encountering in peer review.

This cooperation could lead to stronger bargaining, perhaps, with third party payers, when all this information, which equates

quality, utilization, and cost of patient care is available. It could, in many ways, not only determine physicians' profiles, but patient profiles as well.

The task ahead appears gigantic, but it is important that we not be disillusioned because ideal peer review does not exist at this time. It is necessary that we start now to build an ideal peer review system, and strong attempts must be made on every level. In this changing society of ours, it is best to use every method we can, to be prepared to satisfy our main function, which is the delivery of quality patient care, and to protect the interests of our patients and of the doctor on a voluntary basis. It behooves us all to join in this venture for its eventual success.

The Certifying of Physicians' Assistants*

At the AMA's 1971 Clinical Convention, the House of Delegates directed the AMA to assume a leadership role in developing a program for the certification of the assistant to the primary care physician. The House noted that such a program (which would grant certification on the basis of nationally validated examinations) would help ensure orderly development of the physician's assistant concept under medical guidance.

It was the consensus that (a) the development of a proficiency examination for the assistant to the primary care physician is timely, and (b) advisory bodies should be established to make decisions on policy matters and to serve as the authoritative body to negotiate for examination, construction, and funding.

At its April, 1972 meeting, the AMA Board of Trustees approved a recommendation from the Council on Health Manpower that it collaborate with the National Board of Medical Examiners in development of a certification examination. Concurrently, the National Board of Medical Examiners, at its annual meeting, had recognized the urgent need to develop reliable certification examinations for this category of health personnel and had directed the staff to take appropriate steps to meet this need. It was agreed that the AMA would establish a national advisory body on the physician's assistant to counsel the AMA and the National Board. In addition, the National Board would appoint committees to deal with development of the certification examination, and there would be interlocking membership between the AMA advisory body and the National Board committees.

In June, 1972, a 19-member special Study Committee for the Evaluation of Physician's Assistants was established, under the NBME, to begin development of the certification examination. This Committee is now engaged in identifying all health care tasks which the assistant to the primary care physican should be able to perform, as the basis for subsequent development of test items for the examination. Also, an *ad hoc* Advisory Committee on the Physician's Assistant has been appointed to advise the Council on Health Manpower on development of the certification program and on such related issues as terminology, continuing competence, relationships with physician's assistant organizations, and prerequisites for the certification examination.

Construction of a reliable test instrument is a complex process, but it is hoped that the certification examination will be available for first administration before the end of 1973. Such certification by nationally recognized medical organizations will help maintain high standards in the occupation, will provide the potential physician employer with evidence of competency, and will enhance the career and geographic mobility of the assistant to the primary care physician by providing nationally-recognized credentials.

*See the October 30, 1972 issue of JAMA (222:563) for details about this program.

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—George Sarton, from "The History of Medicine Versus the History of Art"

Are there significant differences in bioavailability and clinical predictability among drug products?

Opinion

Results of a questionnaire to 7,000 physicians:

44.6%
Agree there is a significant difference

24.9%
Believe there is no difference

30.5%
Had no opinion

Are there significant differences in bioavailability and clinical predictability among drug products?

Teacher of Medicine

Alfred Gilman, Ph.D.
Wm. S. Lasdon
Professor & Chairman
Department of
Pharmacology
Albert Einstein
College of Medicine of
Yeshiva University



I think that there can be a very great distinction between generic drugs and brand name drugs. And that applies to products of original research that have outlived their patent protection as well as to drugs that have long been in the public domain. Let me explain why.

The Importance of the Manufacturing Environment

In terms of formulation, quality control, and the ability to reproduce an essentially identical product, batch after batch, I doubt that many firms are properly equipped to put out a product that is as carefully controlled as the product marketed by a pharmaceutical company with sophisticated research and high quality manufacturing facilities. For example, when a company comes out with its own preparation of a drug that has just lost its patent protection, there is no assurance that the drug it produces will be a therapeutic equivalent. The raw material could be identical and yet bioavailability might vary from complete unavailability to that which is equivalent to the original.

It Isn't Enough to Meet USP and NF Standards

Meeting USP and NF standards is not enough to guarantee therapeutic equivalence. In certain instances, stricter standards must be applied. Right now, the New York Heart Association has a committee that is studying the problem of digoxin equivalency. I am certain that they are going to recommend a bioavailability assay of a particular digoxin. Unless this is done, they will not recommend it for purchase or use in New York City hospitals. It represents too much of a hazard. They have gone so far as to recommend a batch-by-batch certification of bioavailability even though the company has been reproducing and marketing a digoxin product through the years.

The Problem of Controlling Bioavailability of Generics

The FDA does not have the manpower to inspect the quality control capabilities of hundreds of houses specializing in generic products. And I don't think that the average pharmacist is knowledgeable or aware of the quality and bioavailability of the infinite numbers of generic preparations. A recommendation has been made that every time a generic house (or for that matter a large pharmaceutical company) markets an already existing drug for the first time, a modified new drug application should be submitted. The manufacturer would have to show that his compound is the therapeutic equivalent of the standard compound in use, assuming that the standard compound is one that has been available for an extended period—say 15 years. This would be one indication that the control of bioavailability is beginning to get the attention that it deserves.

Clinical Predictability More Important Than Pri

Although the question price has been greatly a aggerated, it is true th patients can on occasi save money on gene drugs. But you are not g ing to dare attempt to sa money if it jeopardizes t patient's health. Let's r turn to the example th has become very promine in recent years, that of t cardiac glycosides. Th are probably the most to: drugs we use with resp to the small difference l tween a maximally effecti dose and a toxic dose. Wh you are dealing with dr of this type, the first c cern must be clinical p dictability. At the risk variations in bioavailab ity, it would be sheer fo to try to save the pati what might amount maybe $10 or $20 a ye The physician cannot m age his patient unless h sure that the drug he prescribing has the sa positive effect each ti the prescription is renew This is especially sign cant when the patient ta the product, not for mont but for the rest of his lif

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ıch as the USP, NF or de-
ned by other specific
ɔurce standards. More-
/er, even with equivalent
rug substances, similar
harmaceutical *products*
ın be produced by differ-
ıt manufacturers such
ıat these products are bio-
ıgically or therapeutically
ıequivalent.

A Growing Awareness of Potential for Nonequivalence

As experience increases
ith drug substances de-
:ved from different sources
nd under different condi-
ions, it should be possible
ɔ establish specifications in
ufficient detail to minimize
he potential for their non-
quivalence. However,
here is general agreement
hat product therapeutic
quivalence would still not
e assured even if one could minimize nonequivalence of drug components produced by different manufacturers. Arguments relate largely to the extent of product inequivalences. Experience over the past six years has uncovered a greater incidence of nonequivalence of products prepared by different manufacturers from generically equivalent substances than many had previously surmised.

Newer Bioavailability Studies Reveal Differences

Bioavailability may be defined as a measure of the rate and amount of absorption of a drug substance from its administered dosage form. For several years pharmaceutical scientists have proposed that bioavailability data on presumably equivalent dosage forms provide the best measure of product equivalence—short of adequate clinical trial. In their continued search for shortcuts to the evaluation of product equivalence, medical and pharmaceutical scientists have increasingly relied upon bioavailability characteristics as reflected by blood levels of a drug after its administration to human subjects.

Leading manufacturers now conduct comparative bioavailability studies on their own product dosage forms after production process changes that would have been considered inconsequential a few years ago. This isn't surprising, since there are so many possible differences in production operations that the opportunities for inequivalent generic and brand name products are numerous—even when the production process begins with identical chemical substances. Moreover, reputable manufacturers are striving to improve *in vitro* control measures, such as dissolution characteristics, which are being related more meaningfully to bioavailability reference data.

As a result of advances in scientific instrumentation and analytical methodology which permit measurements of small quantities of drug substances in the body, our abilities to detect differences in bioavailability and possible therapeutic nonequivalance have appreciably improved.

Product Selection Based on Patient Response

Improved specifications and standards can better assure the equivalence of *drug substances*. Manufacturers, compendia and regulatory agencies can all play a part. However, it is the *drug product*, not the *drug substance*, that the physician, pharmacist, nurse and patient-customer utilize. How can these individuals make or influence specific product selections to minimize variations in therapeutic equivalence of multisource drugs? Patients' responses to a drug product provide a basis of experience to aid the physician in his selection of a particular product. The nurse and pharmacist can also help detect patient responses, but ultimate responsibility must remain with the physician.

Reputation of Manufacturer as Basis for Product Selection

The physician, to assure that his patients receive quality health care, must rely upon the capabilities of the reputable pharmaceutical manufacturer who is equipped to develop, prepare and control a quality product of uniform, reliable therapeutic performance. Substitution with purportedly equivalent generic products that are only superficially evaluated by an imitator manufacturer can place the health of the patient secondary to factors of price or convenience for the provider.

Opinion & Dialogue

**What is your opinion, doctor?
We would welcome your comments.**

P·M·A

The Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W., Washington, D.C. 20005

Integument!

Our skin—the human integument—covers us, defines us, protects us. But skin is subject to cuts, burns, abrasions. And infections. Neosporin Ointment fights infection by providing broad antibacterial action against susceptible skin invaders. It contains antibiotics that are rarely used systemically, reducing the risk of sensitization.



INDICATIONS: *Therapeutically,* used as an adjunct to appropriate systemic therapy for topical infections, primary or secondary, due to susceptible organisms, as in: • infected burns, skin grafts, surgical incisions, otitis externa • primary pyodermas (impetigo, ecthyma, sycosis vulgaris, paronychia) • secondarily infected dermatoses (eczema, herpes, and seborrheic dermatitis) • traumatic lesions, inflamed or suppurating as a result of bacterial infection.

Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

CONTRAINDICATIONS: Not for use in the external ear canal if the eardrum is perforated. This product is contraindicated in those individuals who have shown hypersensitivity to any of the components.

PRECAUTION: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Complete literature available on request from Professional Services Dept. PML.

NEOSPORIN® Ointment

(POLYMYXIN B-BACITRACIN-NEOMYCIN)

Each gram contains: Aerosporin® brand Polymyxin B Sulfate 5,000 units; zinc bacitracin 400 units; neomycin sulfate 5 mg. (equivalent to 3.5 mg. neomycin base); special white petrolatum q.s. In tubes of 1 oz. and ½ oz. and 1/32 oz. (approx.) foil packets.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

February 18, 1973

A regular meeting of the Board of Trustees was held on February 18, 1973, at the Executive Office in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of the significant actions follows:

Membership Inquiry and Complaint Mechanism . . . Concurred in the following actions of the Executive Committee:

1. Named the following physicians as candidates for membership on the four committees called for in the resolution concerning membership inquiry and complaint mechanism (approved by the House of Delegates on December 10, 1972, and referred to the Executive Committee for implementation):

1st District
Donald P. Burt, M.D., Morristown
Andrew G. Hudacek, M.D., Morristown
Robert E. McNamara, M.D., Newark
Emanuel M. Satulsky, M.D., Elizabeth

2nd District
Alfred A. Alessi, M.D., Hackensack
Samuel Baum, M.D., Passaic
John J. Crosby, Jr., M.D., Jersey City
Robert A. Weinstein, M.D., Newton
Sidney Woltz, M.D., Union City

3rd District
William H. Coleman, M.D., Trenton
Karl T. Franzoni, M.D., Trenton
Frederick J. Knocke, M.D., Flemington
Howard D. Slobodien, M.D., Perth Amboy

4th District
Meyer L. Abrams, M.D., Willingboro
Melvin J. Andrews, M.D., Camden
Arthur C. Dietrick, M.D., Mount Holly
Michael J. Doyle, M.D., Neptune
William V. McDonnell, M.D., Camden
Joseph W. Schauer, Jr., M.D., Farmingdale

5th District
David R. Brewer, Jr., M.D., Woodbury
Louis K. Collins, M.D., Glassboro
Richard H. DuPree, M.D., Woodbury
James E. George, M.D., Woodbury
Armando F. Goracci, M.D., Woodbury

2. Authorized the committees to select their own chairmen; authorized the establishment of a post office box specifically to receive membership complaints which are to be immediately transmitted to the proper committee; and authorized preparation of a form for third party membership complaints.

Proposed Rule on Internship Standards . . . Concurred in the following action of the Executive Committee:

That a letter be sent to the Secretary of the State Board of Medical Examiners indicating concern that raising the current bed limit from 100 to 150, as stated on the following "Proposed Rule on Internship Standards," will foreclose those hospitals with presently approved internships (and less than 150 beds) from continuing these programs; and that should the bed limit be raised to 150 it be prospective and not retroactive.

Subchapter 9. Internship Standards

13:35-9.1—Internship programs

(a) All proposed internship programs must be approved by the Board of Medical Examiners prior to their institution. Hospitals offering such internships shall be approved by the Joint Commission on Hospital Accreditation or by the American Osteopathic Hospital Accreditation Agency.

(b) Internship training programs approved by the Board shall be limited to general hospitals having a capacity of at least 150 beds, exclusive of bassinets, and having a minimum of 5,000 annual admissions, excluding the newborn. The training program shall provide supervised practice in internal medicine and at least one of the following: surgery, pediatrics, obstetrics and gynecology, pathology, radiology, and experience in an active, well-organized out-patient department.

13:35-9.2—Rotating internship

(a) A rotating internship may consist of as few as two services or as many as five. Simultaneous integration of the intern's activities or other services shall be limited.

(b) The time allotted to internal medicine may not be less than four months. No other assignment shall be less than two months in duration, and in such cases, the two months' assignment shall be consecutive.

(c) A concurrently approved residency program is not a requirement for the approval of a rotating internship.

(d) A certificate by one of the specialty boards shall be acceptable in lieu of the rotating internship.

13:35-9.3—Straight internship

(a) A straight internship is one which provides experience on a single service. Straight internships approved by the Board shall include those in internal medicine or a related subspecialty, surgery, pediatrics, obstetrics and gynecology, pathology and radiology.

(b) To offer a satisfactory straight internship, a hospital must be approved for residency training in the specialties involved.

(c) The Board shall require one year of experience in the single service providing the hospital is properly accredited for residency training in the corresponding specialty.

Medical Student Loan Fund . . . Noted that the stipulation that the $10,000, plus $250, recently donated to the Medical Student Loan Fund by Essex County and one of its members be used only for students who agree to practice in Essex County might be satisfied by changing "New Jersey" to "Essex County" in the statement (on the current loan form) that "any borrower who enters upon medical practice in *New Jersey* will be charged interest at the rate of only 3 per cent per annum" (others are charged 6 per cent).

Medical Practice Act . . . Concurred in the action of the Executive Committee in directing that a letter be sent to the Secretary of the State Board of Medical Examiners indicating the Society's willingness to participate in discussions concerning revision of the Medical Practice Act.

Advisory Committee to Review Disputed MSP and HSP Claims . . . Concurred in the action of the Executive Committee in naming Charles I. Nadel, M.D., Irvington (1st District) and Isaac N. Patterson, M.D., Westville (5th District) to fill the vacancies on the Advisory Committee to Review MSP and HSP Disputed Claims.

Hospital for Rutgers Medical School . . . Received a report from Stanley S. Bergen, Jr., M.D., President of CMDNJ, on plans for a 325-bed hospital in Piscataway to be connected with Rutgers Medical School. This would be a referral hospital (primarily a medical-surgical unit) to accommodate patients from the entire state; walk-in admissions, routine surgical procedures, and obstetrics will not be provided. Offered would be the infrequently needed services not presently available because of cost, now sought elsewhere by New Jersey residents. Utilization of and cooperation with community hospitals will continue, and approval has been granted for a joint residency program with Middlesex General Hospital, Muhlenberg Hospital, and Hunterdon Medical Center.

AMA-AMPAC Public Affairs Workshop . . . Authorized the attendance (with all expenses paid) of John J. McGuire, M.D. and Mr. Vincent Maressa, and (with one-half the expenses paid) of A. Guy Campo, M.D. and Nicholas E. Marchione, M.D. at the AMA-AMPAC Public Affairs Workshop, May 10 and 11, 1973, in Washington, D.C.

Medicolegal Symposium . . . Authorized the attendance (with expenses paid) of E. Powers Mincher, Legal Counsel, at the National Medicolegal Symposium, March 22 to 25, 1973 in Las Vegas, to be jointly sponsored by the American Bar Association and the American Medical Association.

Council on Legislation . . . Approved the report of the Council on Legislation, including the designated position of MSNJ on bills of medical interest.

Current State Legislation:

S-343 —To establish the Aircraft Noise Control Act. *APPROVED*

S-852 —To require that every school bus transporting children to and from school shall be staffed with a monitor at least 16 years of age. *DISAPPROVED,* because the Department of Education has reported that the cost and the administrative impracticalities of the measure make it undesirable legislation.

S-885 —Permits the Commissioner of Institutions and Agencies to make such investigations as he deems necessary in the administration of the Department. *NO ACTION*

S-919 —To provide that any applicant for renewal of a practical nursing license, originally granted by waiver, who can show 12 years of full-time experience shall be granted a license. *DISAPPROVED,* because it imposes greater restrictions than presently exist upon those LPN's who wish to return to the practice of their profession.

S-1041 —To regulate the practice of ophthalmic dispensing. *APPROVED*

S-1054 —To provide for testing of motor vehicle fuels to determine the presence of factors which may contribute to air pollution. *NO ACTION*

S-1055 —To permit pharmacists to use discounts or rebates in sales of drugs or medications to disabled persons or those 65 years of age or older. *APPROVED*

S-1062 —To prescribe safety standards for youth camps. *APPROVED*

S-1079 —To provide that permits of mass gatherings will only be issued when the Board is satis-

fied that such gatherings will be conducted in compliance with established rules and regulations and the public health, safety, and welfare. *APPROVED*

S-1080 —To provide that need for the carrying of firearms shall be shown when an applicant states he is in a business or occupation which makes it necessary to be out late at night in a high crime area with valuables or medical supplies and drugs. *APPROVED*

S-1094 —To provide for defining and establishing child development centers and for licensing. *NO ACTION*

S-1106 A-1504 —To provide that any person subject to recurrent seizures, such as epilepsy, who has not had such a seizure for a period of one year shall be permitted to obtain a driver's license. *DISAPPROVED*, because under existing law that decision rests with the discretion of the Director and this discretion can be tested in the courts.

S-1109 —To permit the Bureau of Children's Services to provide protective custody of abused children. *APPROVED*

S-1111 —To provide for sending of handicapped children to privately operated schools. *APPROVED*, LAW c.4 (1973)

S-1133 —To provide that no dentist shall administer a local or general anesthetic unless the State Board of Registration and Examination has certified that he had successfully passed a course in anesthesia or an examination conducted by the Board. *DISAPPROVED*, because the legislation is unnecessary inasmuch as the State Board of Dental Examiners can deal with this matter by means of regulation.

S-1134 —To establish the Department of Human Services Act, to appropriate $100,000 and to transfer to such department all functions of the Department of Institutions and Agencies, Division of Public Welfare, Divisions of Mental Health, Mental Retardation, and Drug Abuse. *APPROVED*

S-1165 —To require that one member of the Board of Nursing shall be a representative of the New Jersey Industrial Nurses Association. *NO ACTION*

S-1198 —To provide that nothing in the Act concerning Health Care Facilities Planning Act shall be so construed as a delegation of authority to control charges made by health care facilities for services rendered except as otherwise provided. *ACTION DEFERRED*, pending further information from the New Jersey Hospital Association.

S-1199 —To provide that nothing in the Act concerning Health Care Facilities Planning Act shall be so construed as to require issuance of a certificate of need or to compel an increase or reduction of existing licensed beds for replacing existing beds by new construction. *DISAPPROVED*, because it would, in large part, defeat the purpose of existing law and the use of the procedure of the certificate of need.

S-1200 —To provide that no certificate of need shall be issued or denied without approval of the Board and in the event an adverse recommendation has been issued by the State Health Planning Council, the applicant shall receive notice and be granted an opportunity for hearing. *APPROVED*

S-1217 —To provide for disposition of cases of child abuse and neglect and to create a study commission therefor. *DISAPPROVED*, because it complicates, without improving, existing law procedures.

S-1232 —To provide for retention of photographic reproduction of x-ray films by the hospital custodian of records for a period of five years. *APPROVED*

S-1233 —To provide that no person shall be denied eligibility for Medical Assistance and Health Service Act benefits solely on the basis of increased Social Security benefits payable on or after September 1, 1972. *APPROVED*

S-1238 —To establish a grant program in the Department of Agriculture to supplement the hog cholera eradication indemnity program; to appropriate $130,000. *NO ACTION*

S-1262 —To increase the monetary factor of determining State reimbursement for community mental health projects from 50¢ to $1 multiplied by the population exclusive of capital expenditures. *NO ACTION*

S-1264 —To permit destruction of hypodermic needles by mangling and other methods not presently provided for. *APPROVED*

S-1265 —To provide that any board of education in a school district in which children are domiciled in a public or private institution by referral from a State or county agency and attend public schools of the district may submit a request for special State aid to the Commissioner of Education. *NO ACTION*

S-2008 —To establish pilot projects in emergency mobile intensive care and to utilize mobile intensive care paramedics. *APPROVED*

S-2009 —To provide that the office of Emergency Medical Service in the Department of Health shall establish a program for training of emergency medical personnel in the procedure of defibrillation. *APPROVED*

S-2043 —To provide that no person having jurisdiction over potable water shall direct mandatory fluoridation until the question has been first approved by voters in a referendum. *DISAPPROVED*, because it is a practical impossibility to achieve, by referenda, the mandatory fluoridation of the water supply of counties when many of them are serviced by a single company. For this reason The Medical Society of New Jersey, since 1971, has been on record as favoring the fluoridation of potable water supplies by means of a mandatory program under the aegis of the Department of Environmental Protection.

S-2052 —To create drug work treatment centers and to provide for commitment and care of hard drug violators. *NO ACTION*

S-2056 —To permit counties and municipalities to provide for hospitalization contracts which include dental and ophthalmological services and supplies. *APPROVED*

S-2059 —To appropriate $500,000 to the Department of Agriculture for Hog Cholera Eradication. *APPROVED*

SJR-2001—To request the Division of Motor Vehicles to provide space on the driver's license for information concerning donations under the "Uniform Anatomical Gift Act." *APPROVED*

SR-25 —To memorialize the President of the United States and the Administrator of Veterans Affairs to give consideration to the establishment of a new veterans' hospital in southern New Jersey. *APPROVED*

A-52 —To provide for exhaust emission standards which must be met in inspections of motor vehicles. *APPROVED*

A-433 —To provide that the Commissioner of Environmental Protection shall formulate rules and regulations concerning the labeling and prohibiting, conditioning, and controlling the sale of cleaning agents whose use may tend to cause adverse effects on man or the environment. *APPROVED*

A-514 —To provide for the regulation of clinical laboratories in the New Jersey Clinical Laboratory Improvement Act. *ACTION DEFERRED*, pending further study of the bill.

A-539 —To provide under the Air Pollution Control Act that noise shall be considered an air contaminant and at a level greater than 108 perceived noise decibels shall be a prima facie evidence of air pollution. *APPROVED*

A-836 —Requires every school bus to be staffed with a monitor at least 16 years of age in addition to the driver; effective at the commencement of the school year next succeeding enactment. *DISAPPROVED*, because the Department of Education has reported that the cost and the administrative impracticalities of the measure make it undesirable legislation.

A-1048 —To prohibit manufacture, sale, or distribution of recycled paper, cardboard or paper products intended for use as containers or wrappers for food products. *NO ACTION*

A-1179 —To provide for licensing of audiologists and speech pathologists by the Board of Medical Examiners and to create an Examining Committee of Audiology and Speech Pathology. *DISAPPROVED*, because the bill does not provide that the audiologist is to function at the direction or prescription of a duly licensed physician.

A-1317 —To provide that an impounded animal shall be destroyed only by a method generally acceptable to the veterinary medical profession. *APPROVED*

A-1321 —To exclude from the old age assistance law definition "lacks adequate support" all expenditures for medical services and prescription drugs for treatment of a chronic recurring nature in excess of 30 per cent of an applicant's income and resources and shall not be included for any determination of available income. *APPROVED*

A-1322 —To permit freeholders to establish county boards of health under a Local Health Services Act. *APPROVED*

A-1333 —To require all packaged baked goods to bear a label indicating the date on which they were baked. *NO ACTION*

A-1344 —To prohibit sales of dogs for purposes of experimentation. *DISAPPROVED*, because it would hinder progress of scientific animal research, with jeopardy to the public welfare.

A-1352 —To remove from the Administrative Procedure Act all agencies with management and operation responsibility of State educational, medical, mental, rehabilitative, custodial, penal or correctional institutions or programs insofar as they relate to internal affairs. *NO ACTION*

A-1358 —To provide for the establishment of county residential treatment centers for emotionally disturbed children. *DISAPPROVED*, because the provision of treatment by qualified medical personnel is not specifically insured; nor does it make provision for a certificate of need, which would apparently be required.

A-1374 —To permit minors 14 years of age or over to work outdoors for establishments where alcoholic beverages are served. *NO ACTION*

A-1376 —To establish an Ecology Corps in the Department of Environmental Protection. *NO ACTION*

A-1387 —To provide that persons accused of offense found to be insane shall be ordered into the custody of the Commissioner of Institutions and Agencies for placement in a State institution. *APPROVED*

A-1394 —To empower the Commissioner of Environmental Protection to adopt rules and regulations to control and prevent the accidental spillage of materials which may cause adverse effects on the waters of the State. *APPROVED*

A-1397 —To require persons licensed to give eye examinations to notify the Director of Motor Vehicles whenever persons examined suffer from uncorrectible visual deficiencies. *DISAPPROVED*, because although the intent of the bill is commendable it lacks adequate specific standards for implementation.

A-1403 —To define "hazardous substance" under the Hazardous Substances Labeling Act to include any substances which yield quantities of lead, cadmium or toxic metals, or metallic substances, in excess of standards adopted by the Department of Health pertaining to substances used to contain, store or serve foods, beverages or drink for human consumption. *APPROVED*

A-1413 —To establish a Division of Consumer Health Services and and Advisory Council on Consumer Health in the Department of Health. *DISAPPROVED,* because this legislation is unnecessary in view of existing law.

A-1423 —To provide that all packaged ground meat must be labeled with the day of the week and the month it was ground. *NO ACTION*

A-1434 —To permit municipalities to appropriate funds for use of nonprofit organizations caring for mentally retarded, brain injured, or mentally ill persons. *APPROVED*

A-1444 —To prohibit the use of tractionized or regrooved tires on school buses. *APPROVED*

A-1474 —To provide that no dog licenses shall be issued unless the owner provides evidence that the dog has been innoculated with anti-rabic vaccine. *DISAPPROVED,* because the bill is not equitable in that it provides no exemption for dogs allergic to the vaccine.

A-1478 —To provide for direct billing by the providers of clinical laboratory services to the recipient of the services. *DISAPPROVED,* because it would raise the cost of laboratory fees by necessitating the addition of billing and collections procedures.

A-1480 —To require all persons riding in a passenger automobile equipped with seat safety belts or manufactured after July 1, 1966 to wear such belts and to provide penalties. *DISAPPROVED,* because there are certain medical conditions in which the wearing of seat belts is contra-indicated.

A-1483 —To require that each bio-analytical laboratory be under supervision of a person licensed to practice medicine and surgery and certified in clinical pathology or a licensed bio-analytical laboratory director. *DISAPPROVED,* because it is not in the best interest of the public. Many physicians practicing pathology are certified in anatomical pathology, but not clinical pathology although they have extensive training in that field. Many hospital laboratories are supervised by well-qualified physicians who are not certified specialists in clinical pathology. Therefore, if this bill is enacted it will create a crisis situation in many New Jersey hospitals that are providing admirable services to the community.

A-1488 —To permit the Bureau of Children's Services, any physician, any superintendent or medical supervisor, or a medical facility having as one of its objects the prevention of cruelty to children to hold a child in protective custody without court order for 48 hours or until the next court session. *APPROVED*

A-1490 —To provide that facilities and programs for handicapped children shall be chosen by the Board of Education after consultation with the county child study team and the parents or guardians of the child. *APPROVED*

A-1497 —To prohibit practitioners from dispensing methadone without approval of the Commissioner of Health after first informing him of the name of the individual to be treated and amount of methadone to be dispensed. *ACTION DEFERRED,* pending further information from the Committee on Drug Abuse.

A-1504 —To provide that persons subject to convulsive
S-1106 seizures who have not experienced such seizures for a period of one year shall not be denied driving privileges *DISAPPROVED,* because under existing law that decision rests with the discretion of the Director and that discretion can be tested in the courts.

A-1506 —To prohibit spraying of pesticides harmful to human life on any farm when laborers are in the fields. *APPROVED*

A-1509 —To exempt employees of a humane society from prohibition of the Controlled Dangerous Substances Act. *APPROVED*

A-1510 —To prohibit spraying of pesticides if there are persons in the area or if there is a risk to an adjacent area. *DISAPPROVED,* because it would impose extreme restrictions, which for all practical purposes would make the spraying of pesticides impossible with consequent disadvantage to the public welfare.

A-1513 —To require supermarkets to provide public toilet facilities. *NO ACTION*

A-1516 —To require adult attendants on school buses transporting handicapped children. *NO ACTION*

A-1525 —To prohibit the operation of motor vehicles manufactured after January 1, 1974 unless they have seat belts for all seating positions and shoulder belts for two front seats. *DISAPPROVED,* because there are certain medical conditions in which the wearing of seat belts is contra-indicated.

A-1572 —To provide that a license may be suspended for any person prescribing or dispensing controlled dangerous substances in an indiscriminate manner or where the licensee reasonably knows that the substances previously prescribed or dispensed were used for illicit consumption or distribution. *APPROVED*

A-1574 —To provide that it shall be unlawful to manufacture or offer for sale any glazed ceramic tableware which releases lead in excess of 7 parts per million or cadmium in excess of 0.5 parts per million. *APPROVED*

A-1578 —To permit the Commissioner of Health to grant a waiver of the requirements of examination and a public health degree for a health officer's license for persons who meet certain requirements. *DISAPPROVED,* because it would reduce the present statutory qualifications, with hazard to the public interest.

A-1579 —To provide for medical examinations of school pupils who may be under the influence of drugs by either the medical inspector or any other licensed physician. *APPROVED*

A-1581 —To provide that the prohibitory provisions of the act concerning the practice of medicine shall not apply to the practice of acupunc-

ture by an unlicensed person provided the practice is carried on in a medical school and the primary purpose is scientific investigation. *APPROVED*

A-1590 —To require all motor vehicles regularly used to transport three or more children to and from school to display a sign on the rear of the vehicle stating "Caution-Vehicle Transporting Children." *DISAPPROVED*, because it is impractical of enforcement.

A-1591 —To provide for the licensing of residential child care facilities. *NO ACTION*

A-1601 —To provide that every motor vehicle under the jurisdiction of a Board of Education to transport pupils to and from school shall display a sign calling upon motorists to come to a full stop while the school vehicle is taking on or discharging pupil-passengers. *APPROVED*

A-1609 —To provide for a medical examination of school pupils who may be under the influence of drugs by any licensed physician when the parents or guardian consent. *DISAPPROVED*, because this measure would delay the process of immediate examination.

A-1614 —To permit municipalities to license and regulate health studios, spas, gymnasiums, and any other public facility used for instruction, training or assistance in physical culture, body-building, exercising, reducing, figure development, or any other physical skill. *NO ACTION*

A-1629 —To provide that any correctional institution officer, who suspects any inmate is using any controlled dangerous substance, shall report his findings to the medical officer and the inmate shall thereupon submit to any and all valid examinations. *APPROVED*

A-1630 —To provide that the Department of Environmental Protection shall promulgate, within 6 months after the effective date of this Act, regulations concerning the maintenance of detailed operational records, monitoring and control of dangerous gases, prevention of pollution hy seepage, and special treatment of hazardous wastes under "The Solid Waste Control and Landfill Reclamation Act. *APPROVED*

A-1635 —To appropriate $207,313 to the Division of Health Care Facilities to carry out the purposes of the Health Care Facilities Planning Act. *NO ACTION*

A-1637 —To provide that it shall be the duty of the Board of Education to arrange that any pupil suspended or expelled from a public school for more than 7 days shall be examined to determine if he shall be classified as mentally retarded, communication handicapped, neurologically or perceptually impaired, emotionally disturbed, socially maladjusted, multiple handicapped, or as having any other learning disability, and that upon the accomplishment of such determination to provide suitable educational facilities for such pupil. *APPROVED*

A-1644 —To provide that no court may order the release of a person on his own recognizance if charged with the offense of treason, murder, kidnapping, manslaughter, armed robbery, rape or sodomy, or if the alleged victim is under 16 and the person is charged with offenses of carnal abuse, lewdness, impairing morals of a minor or assault with intent to commit rape, carnal abuse or sodomy. *NO ACTION*

A-2004 —To authorize the Department of Health to establish emergency mobile medical care pilot programs. *APPROVED*

A-2013 —To permit the State Department of Health and Local Boards of Health to provide at public expense for the immunization of pupils from diseases which are required to be immunized against under the State Sanitary Code. *APPROVED*

A-2014 —To provide 75 per cent, in place of 50 per cent, State aid for the education of handicapped children. *NO ACTION*

A-2017 —To require persons using methadone, on a drug rehabilitation program, to surrender their driver's license to the Director of Motor Vehicles. *DISAPPROVED*, because it would inexcusably stigmatize the individual being rehabilitated and would discourage recourse to the methadone rehabilitation program.

A-2020 —To permit applicants for examinations to practice medicine and surgery to declare citizenship intent in an affidavit submittted to the Board. *APPROVED*

A-2030 —To provide that the owner of any dog shall be liable for personal injuries caused to a person. *NO ACTION*

A-2048 —To repeal Sections 3, 4, and 5 of P.L. 1952, Chapter 102 of the Prevention of Chronic Illness Act in order to complete reorganization of the Department of Health. *NO ACTION*

A-2052 —To provide that no person, otherwise eligible under the Medical Assistance and Health Services Act, shall be denied eligibility for such benefits solely on the basis of the increased social security benefits effective September 1, 1972. *APPROVED*

A-2067 —To provide for reimbursement of licensed chiropractors for services under the act concerning medical service corporations. *ACTIVE OPPOSITION*, because the services which chiropractors are licensed to provide are not among the services covered by medical service corporations. They are not licensed or recognized as physicians or surgeons and are not qualified—or licensed—to supply medical and/or surgical services for injuries and/or disease conditions.

A-2068 —To provide for reimbursement of licensed chiropractors for services under the act concerning health insurance other than group and blanket insurance. *ACTIVE OPPOSITION*, (See A-2067)

A-2069 —To provide for reimbursement of licensed chiropractors for services under the act concerning group health insurance. *ACTIVE OPPOSITION,* (See A-2067)

A-2071 —To remove the requirement that a person must be a citizen of the United States to receive a license to practice medicine or surgery in this State. *DISAPPROVED,* because the present mechanism of the Declaration of Intent to assume citizenship is adequate to open to foreign physicians the avenue to licensure.

A-2091 —To provide that information in the central registry of the Bureau of Children's Services shall be made available to social caseworkers, probation officers, and members of law enforcement agencies determined to have a professional interest in the control of child abuse. *ACTION DEFERRED,* pending further information from the Committee on Child Health.

A-2104 —To provide for a summer intern program in water pollution control in the Department of Environmental Protection. *NO ACTION*

A-2121 —To establish a "Contracts for Health Studio Services Act" to provide for certain requirements, limitations and prohibitions concerning such contracts; to require health studios to file bonds with the Director of Consumer Affairs; and to provide for recovery of damages upon, and a penalty for, violations. *NO ACTION*

A-2123 —To provide that special need to intercept wire communications shall include a showing that the licensed physician, attorney at law, or practicing clergyman is personally engaging or was engaged over a period of time as part of a continuing criminal activity. *NO ACTION*

A-2129 —To provide that persons convicted of distributing controlled dangerous substances to persons under 18 years of age or convicted of a second offense shall not have their sentences suspended nor be placed on probation. *NO ACTION*

A-2136 —To provide that food shall be deemed misbranded unless it bears a label indicating the nutritive value of the food. *NO ACTION*

A-2152 —To provide that the use of terms "cut-rate," "discount," "bargain," or similar connotation in connection with prices for prescription drugs and narcotics, or fees, or for services relating thereto shall constitute grossly unprofessional conduct under the act concerning the professional conduct and practice of pharmacists. *NO ACTIO N*

A-2173 —To grant immunity from civil liability to hospitals, clinics, physicians, surgeons, resident nurses, or resident or interns on the staff of a hospital or clinic performing tests and taking breath or blood samples at the request of law enforcement officers. *APPROVED*

Bills to be Noted and Filed:

SCR-95 —To amend the New Jersey Constitution after referendum, to provide that every person under the age of majority shall be entitled to protection of the State in securing him from physical, mental, or emotional damage or abuse.

SCR-109—To memorialize Congress to pass appropriate legislation to study the creation of an aid program for "terminal illness" expenses and to authorize legislation that would provide funding therefor.

SCR-112—To amend the New Jersey Constitution, after referendum, to provide that bail shall be denied to all persons charged with crimes which, upon conviction, may result in a penalty of death or life imprisonment.

SCR-2007—To direct the Commission of Intergovernmental Relations to develop a program for interstate cooperation in combating drug addiction and drug related crime.

A-1365 —To provide for issuance of proof of age to persons 18 years of age by the Director of Alcoholic Beverage Control.

A-1494 —To require every bicycle to be equipped with a front and rear light visible at least 500 feet.

A-1529 —To appropriate $1,500,000 to the Department of Institutions for payment to the Hudson County Freeholders for emergency aid to Meadowbrook Hospital for Mental Diseases, Berthold S. Pollak Hospital, and the Jersey City Medical Center. (LAW c.213, Dec. 29, 1972)

A-1545 —To provide that the Legislature does not intend to alter the services relating to dependent and neglected children for persons 18 to 21 years of age who avail themselves of school or training programs below college level or who require a course of treatment for emotionally, cognitively, or physically disabled persons despite the new age of majority. (LAW c.206, Dec. 27, 1972)

ACR-2001—To create a commission to study and review the penalties currently imposed upon individuals convicted of using substances subject to the Controlled Dangerous Substances Act.

ACR-2004—To memorialize the President and Congress of the United States and the Administrator of Veterans' Affairs to establish a veterans' hospital in central New Jersey.

ACR-2010—To authorize the Rutgers College of Agriculture and Environmental Science to conduct a study of the feasibility of establishing a four-year school of veterinary medicine as part of the college.

AJR-18 —To direct the Attorney General with assistance of the Commissioner of Environmental Protection to investigate and take necessary action against other states, instrumentalities, or persons to abate nuisance caused by dumping and disposal of solid waste at sea.

AJR-22 —To authorize the Director of Motor Vehicles to provide space on all drivers' licenses

for information concerning donations under the Uniform Anatomical Gift Act.

AJR-2003—To designate the week of January 28 to February 3 as "Blood Donor Week."

AJR-2005—To create a commission to study acupuncture and the feasibility of licensing practitioners of acupuncture.

AR-2009—To authorize the Assembly Air, Water Pollution and Public Health Committee to conduct a study of and to hold public hearings on the practice of acupuncture and the licensing of practitioners thereof.

Uniform Medical Procedural Terminology and Code Project . . . Approved the following recommendation of the Council on Medical Services pertaining to MSNJ support of a project which would involve use of a test form by 200 to 250 physicians aimed at developing, on a national level, a standardized format for Medicare and Medicaid billing which would put the terminology in the hands of the physician:

That the Board of Trustees of The Medical Society of New Jersey regrets that it cannot support this proposal as presented but suggests that equally dependable and complete information can be obtained by directly interviewing physicians selected at random.

Policy on Injectables . . . Approved the following recommendation from the Council on Medical Services concerning a communication from I. Fulton Erlichman, M.D., Chief, Bureau of Professional and Technical Services, to J. Charles Breme, M.D., Medical Director of the Division of Medical Assistance and Health Services (I and A), pertaining to proposed changes in policy on injectables, including immunizations, and the removal of the requirements of prior authorization for injectable drugs, and listing exceptions that are not reimbursable to the physician:

That the Board of Trustees recommend to the Medicaid Negotiating Committee that they continue to maintain an open attitude toward obtaining payment for injectables and prosthetic devices supplied by physicians, and that there should be continuing pressure by MSNJ in this area, and that in furtherance thereof approval of Dr. Erlichman's memo be transmitted to Dr. Breme.

Eye Health Screening Program . . . Approved the following recommendation from the Council on Public Health:

That the Eye Health Screening Program be conducted in 1973, during the month of September, using the same procedures as in previous years.

Screening of Hearing in Public Schools . . . Approved the following recommendation from the Council on Public Health:

That the Council on Legislation encourage and assist in the introduction and advancement of legislation that will provide adequate mandatory methods of screening of hearing in New Jersey Schools.

Assembly Bill 1397 . . . Approved the following recommendation from the Council on Public Health concerning A-1397 which would oblige physicians and optometrists, who determine that a person licensed to drive in New Jersey has an "uncorrectable visual deficiency which *may* render him incapable of operating a motor vehicle," to notify the Director of the Division of Motor Vehicles within seven days of such determination:

That the Council on Legislation oppose A-1397 (because the provisions of this bill would be an invasion of privacy between doctor and patient and could cause a patient to travel out of state to get an eye examination, if he anticipated a problem) and recommend that the New Jersey Division of Motor Vehicles have, at periodic intervals, re-examination of licensed motorists, and that those found to have deficient vision be referred for proper eye care.

Council on Public Relations . . . Approved the Report of the Council on Public Relations, including the following recommendations, as amended by the Board. (Italics indicate Board Amendment)

1. That the Board of Trustees approve a meeting of the public relations chairmen of the respective county societies for discussion of particular items, and to advise them of the Council's willingness to help them in their public relations programs and problems.

2. That the Board of Trustees approve the Council's efforts to obtain the Vice-President of the United States as the guest-speaker at the dinner of the President of MSNJ in conjunction with the 207th Annual Meeting; *that if the Vice-President of the United States is unable to attend the 207th Annual Meeting, Casper Weinberger, the Secretary of HEW, be invited to be guest-speaker at the President's dinner; that if the secretary of HEW cannot attend, the Council on Public Relations and the Executive Committee select the guest-speaker for the 207th Annual Meeting.*

3. That the Board of Trustees approve an informal dinner-meeting with the press, probably in April.

Committee on Publication . . . Approved the following recommendation from the Committee on Publication:

That The Medical Society of New Jersey enter into agreement with Xerox University Microfilms to have the latter reproduce copies of *The Journal*, MSNJ, in accordance with the contract submitted.

Scientific Program . . . Approved the following recommendations from the Sub-Committee on Scientific Program:

1. That a minimum-size booth space in the Informational Exhibits be reserved for JEMPAC, without charge, and that MSNJ be absolved from the payment of any charges for special booth equipment, furniture, electrical outlets/connections, etc.

2. That contact be made with the Director of the Division of Medical Assistance and Health Services urging that he prepare a letter informing the members of MSNJ that representatives of the Division will be on hand at booth I-212 to answer any and all questions concerning New Jersey Medicaid; and if the proposed letter is prepared for mailing to the membership, the usual charge for an addressograph run be waived.

3. That a letter be sent to the New Jersey Commissioner of Health strongly urging him to prepare an Informational Exhibit on the exact status of comprehensive health planning and what is required for a certificate of need.

4. That, through Richard E. Lang, M.D., the Steering Committee to the New Jersey Foundation on Health Care Evaluation be requested to set up an Informational Exhibit from which literature and pamphlets could be distributed to those in attendance at the 207th Annual Meeting of MSNJ.

5. That in 1973 there be first and second place award plaques presented to New Jersey exhibitors; first and second place award plaques presented to out-of-state exhibitors; a special award plaque from the Subcommittee on Scientific Exhibits to be presented to a New Jersey exhibitor; certificates of merit to be presented to students from each of New Jersey's two medical schools; and honorable mention certificates to be presented to New Jersey and out-of-state exhibitors (number of certificates to be determined on the basis of merit).

6. That the award plaques and certificates be presented on Monday afternoon; and that announcement of the winners be made at the third session (Part I) of the House of Delegates.

Emergency Medical Care . . . Approved, as amended by the Board, the following recommendations from the Committee on Emergency Medical Care:

1. That a fully developed emergency room department of a general hospital be recognized as a separate clinical department, and further that this department be headed by a qualified physician director.

2. That the Board of Trustees approve the establishment of standardized emergency department records for the purpose of statistical analysis of emergency room care.

3. That a very critical study be made of S-2008 and S-2009 (prehospital cardiac care by ambulance personnel) so that the project as proposed be under strict medical supervision. Adequate training of the personnel involved in the mobile coronary care programs should be determined by the State Department of Health and before complete implementation, this program should be reviewed with MSNJ.

Family Practice as Medical Specialty . . . Adopted the following as the official position of MSNJ concerning family practice as a specialty and directed that Division of Medical Assistance and Health Services be so notified:

That, as does the American Medical Association, The Medical Society of New Jersey recognizes Family Practice as a separate medical specialty and is of the opinion that specialists in Family Practice are entitled to compensation as qualified consultants in other specific specialty fields when their hospital staff privileges recognize them as such.

Statement on Abortion . . . Authorized the issuance of the following statement on abortion:

The Medical Society of New Jersey advises its members to be guided by the official interpretation of civil authorities concerning the opinion on abortion recently issued by the U. S. Supreme Court.

In accordance with a policy decision taken by the House of Delegates of The Medical Society of New Jersey in May 1972, the Society urges state legislation that will embody the following elements:

a. There be no restriction upon the performance of abortion up to the end of the 16th week from commencement of pregnancy, except those of good, safe, medical practice.

b. That the requirements for the performance of abortion be: (1) that the pregnant woman gives her consent; (2) that, if married, her husband either concur, or sign a release; (3) that her physician agree that her health would safely permit it, or state that her physical or mental health requires it.

c. A pregnant woman, age 18 or over, should not be required to obtain parental or guardian consent for abortion.

d. Pregnant girls under age 18 should have parental or guardian consent for abortion.

e. Abortions should be performed only in those areas of hospitals where adequate surgical practice can be assured by competent medical personnel.

f. No physician shall be required to perform an abortion, nor shall any institution be required to allow an abortion to be performed within its walls.

g. No physician or medical institution can be declared liable for having performed an abortion provided that appropriate written permission was obtained and the procedure was done according to accepted standards.

h. No abortion shall be permitted in New Jersey on any woman who is not a bona fide resident of the state.

i. No advertising or solicitation of patients for abortions, by direct or indirect methods, in or outside the State of New Jersey, shall be permitted.

Referral of Obstetrics Cases Under Medicaid . . . Directed that the Division of Medical Assistance and Health Services (I and A) be

notified that MSNJ supports the position of the New Jersey Obstetrical and Gynecological Society that all Medicaid obstetrics cases be referred out of the hospital clinic to a private physician, unless it can be shown by the hospital that it can assign a full-time physician to the individual clinic patient during prepartum, intrapartum, and postpartum periods.

External Auditor . . . Authorized the acceptance of the proposal for the 1973 audit from C. Bergen Groendyke and Company at a fee of $3,000.

Medical-Surgical Plan Activities . . . Received the following report on recent activities and developments of Medical-Surgical Plan:

a. The Commissioner of Insurance has suggested, and MSP has agreed, that MSP subscribers should be reimbursed for that portion of the premiums paid which formerly covered medical services for auto accidents but which will no longer do so under no-fault coverage in New Jersey.

b. Within the last year, MSP has been adding to its reserves, in consequence of the rate increase which became effective on February 1, 1971, the decreased utilization of maternity benefits, the stabilization of the utilization of surgical benefits, increasing revision of payments for ineligible laboratory services under Rider J, and the fact that about 60 per cent of MSP's business is now experienced-rated.

c. Discussions have been under way with the Commissioner concerning the possibility of making changes in payments under the program to bring those payments in balance with relative value considerations.

d. The fact that the majority of the people of New Jersey are not now eligible to claim full service benefits because they fall in the low income level has led to the further suggestion that MSP should issue and sell another contract with income levels about 50 per cent higher than in the present basic contract, with premium levels increased by approximately 50 per cent, and with the schedule of payments increased approximately 50 per cent.

U.S. Health Department Proposed

More than 80 members of the House and Senate introduced legislation that would establish a separate Department of Health, a proposal advocated by the American Medical Association for a century.

Chief cosponsors were a former secretary of Health, Education, and Welfare, Senator Abraham A. Ribicoff (D-Conn.), and the chairmen of two key health subcommittees, Senator Edward M. Kennedy (D-Mass.) and Rep. Paul G. Rogers (D-Fla.). Twenty-four Democratic senators and 60 Representatives, 54 Democrats and 6 Republicans, had signed the bill when it was introduced. Additional sponsors were expected to be added later.

The legislation, which would break up HEW into three departments ran counter to President Nixon's plan for government reorganization. His plan calls for merger of HEW into a new, even bigger Department of Human Resources.

The AMA House of Delegates, as far back as 1873, adopted a resolution calling for a separate federal department "as a *means* of promoting sanitary science and the protection of the public health." In 1891, the delegates approved appointment of a committee "to memorialize Congress at its next session on the subject of creating a cabinet officer to be known as the secretary of public health."

Through the years the House of Delegates has reaffirmed this position, the most recent such action having been taken in December, 1970.

"HEW, as presently structured, is unwieldy, unmanageable, and unresponsive to the executive and legislative branches," Ribicoff said in a Senate speech. "No secretary can know what is going on in such a huge department, much less maintain control of the operation and policy-making apparatus of such a bureaucracy. As a former secretary of HEW, I am convinced that health policy can be more rationally developed and the health programs of our nation better handled if they are placed under the jurisdiction of one agency of manageable size, a department of health."



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1. Gordon, E. E. and Haas, A., Indust. Med. & Surg. 28:217, May, 1959.

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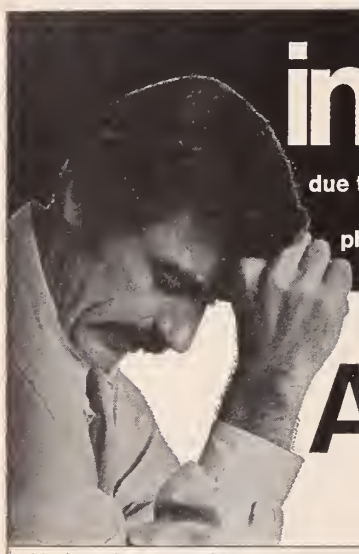
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Available: Bottles of 60, 500.

Contraindications: Android is contraindicated in patients with prostatic carcinoma, severe cardiorenal disease and severe persistent hypercalcemia, coronary heart disease and hyperthyroidism. Occasional cases of jaundice with plugging biliary canaliculi have occurred with average doses of Methyl Testosterone. Thyroid is not to be used in heart disease and hypertension.

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Hypercalcemia may occur, particularly in immobilized patients: use of Testosterone should be discontinued as soon as hypercalcemia is detected.

References: 1. Montesano, P., and Evangaliate, I. Methyltestosterone-thyroid treatment of setual impotence. Clin Med 12:69, 1966. 2. Dublin, M. F. Treatment of impotence with methyltestosterone-thyroid compound. West Med 5:67, 1964. 3. Titeff, A. S. Methyltestosterone-thyroid in treating impotence. Gen Prac 25:6, 1962. 4. Heiman, L., Bradlow, H. L., Zumoff, B., Fukushima, O. K., and Gallagher, T. F. Thyroid-androgen interrelations and the hypocholesteremic effect of androsterone. J Clin Endocr 19:935, 1959. 5. Farris, E. J., and Colton, S. W. Effects of L-thyroxine and liothyronine on spermatogenesis. J Urol 79:863, 1958. 6. Osol, A., and Farrar, G. E. United States Dispensatory (ed. 25). Lippincott, Philadelphia, 1955, p. 1432. 7. Wershub, L. P. Sexual Impotence in the Male. Thomas, Springfield, Ill., 1959, pp. 79-99.

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Maybe the patient's self-diagnosis is right. He could have hay fever. But that bright red nasal mucosa, along with the thick discharge and excoriation around the nares, strongly suggests that the main problem is a cold. Hay fever or another form of allergic rhinitis may or may not be an underlying factor.

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WARNINGS: *Use in children:* In infants and children particularly [illegible] in overdosage may produce convulsions and death.
PRECAUTIONS Administer with care to patients with cardiovascular disease, or hypertension. Medicate patient's [illegible] he should be cautioned against engaging in operations requiring alertness, such as driving an automobile, operating machinery, etc. Patients receiving [illegible] mine should be [illegible] additive effects [illegible]

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Phenaphen with Codeine No. 2, 3, or 4 contains: Phenobarbital (¼ gr.), 16.2 mg. (warning may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Codeine phosphate, ¼ gr. (No. 2), ½ gr. (No. 3) or 1 gr. (No. 4) (warning may be habit forming)

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products, excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

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Medical College Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The Computer as a Tool in Medical Instruction

For two years a student and teaching assistant, C. R. Brigham, at the Rutgers Medical School, CMDNJ, has been playing an important part in helping to develop the computer as a tool in medical instruction. He has spent more than two years in helping to research and to write *A Guide to Computer Assisted Instruction in the Health Sciences,* which will be published in 1973 by the United States Department of Commerce. Mr. Brigham is primary author of the work which was co-authored by Richard J. Cross, M.D., Chairman of the Department of Community Medicine at Rutgers Medical School, CMDNJ, and Martin Kamp, M.D., Chief of Instructional Systems at the University of California at San Francisco. Publication was supported by the Lister Hill National Center for Biomedical Communications, a division of the National Library of Medicine at Bethesda, Maryland.

The guide will serve as a reference work for those who are experimenting with computer teaching methods by providing them with the most up-to-date, complete listing of computer courses in the world.

The body of the publication consists of the reports from 205 schools of allied health, medicine, dentistry, and pharmacy on their plans and activities in computer-assisted instruction. It also includes a list of 362 computer-assisted courses in the health sciences, divided by subject area with most programs listed under allied health, dentistry, preclinical medical subjects, clinical subjects, pharmacology, and veterinary medicine.

The computer provides a highly individualized type of instruction. For this reason it may be particularly well suited to remedial instruction and to increasing the over-all quality of medical education. Computerized instructional material is also relatively easy to update. The individual actively participates in the learning process with a computer. If it is well programed, it will ask questions which are tailored to the needs of each user. The computer is particularly suited to portraying the role of the patient in a physician-patient encounter. The individual assumes the role of the physician, asking questions about the health of the computer-patient.

The student can also receive a computer print-out of the blood pressure, laboratory tests, and other procedures which would indicate the state of health of the patient. With all this information, the student can prescribe treatment for his computer-patient. Instruction of this new teaching aid will not lighten the workload of the faculty, but it will mean more time for personal involvement with students.

The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 95, Belleville, New Jersey.

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

ANESTHESIOLOGY—Naseer M. Raja, M.D., 1491 East 191st Street, Euclid, Ohio 44117. King Edward (Pakistan) 1965. Board eligible. Group, solo, or partnership. Available June 1973.

GENERAL PRACTICE—Charles Levitan, M.D., 2801 South King Drive, Chicago 60616. Harvard 1972. Group, partnership, solo. Available July 1973.

INTERNAL MEDICINE—Shahnawaz S. Jaffer, M.D., 5173 Whetstone Road, Richmond, Virginia 23234. University of Karachi (Pakistan) 1967. Board certified. Subspecialty, gastroenterology. Group, associate, or partnership. Available July 1973.

M.I.A. Malik, M.D., 226 Lincoln Avenue, Apt. #17, Newark 07104. King Edward (India) 1962. Board eligible. Subspecialty, pulmonary disease. Group, partnership, or associate. Available August 1973.

Barry J. Weber, M.D., 30 Merle Place, Apt. 3-D, Staten Island, New York 10305. George Washington University 1966. Board certified. Subspecialty, pulmonary disease. Group or partnership. Available July 1973.

Tiac Son Co, M.D., 475 West End Avenue, Apt. 5, North Plainfield 07060. Far Eastern University 1965. Board eligible. Solo or group. Available July 1973.

Edward Jang, M.D., 7 Hegeman Avenue, Apt. 10-D, Brooklyn 11212. National University (Taiwan) 1965. Board eligible. Group or partnership. Available July 1973.

OBSTETRICS-GYNECOLOGY—Ching-Ho Lin, M.D., 115 Browne Street, Apt. 3, Brookline, Massachusetts 12146. National University (Taiwan) 1965. Board eligible. Associate or partner. Available July 1973.

W. Kim, M.D., 7911 Detroit Avenue, Cleveland 44102. Seoul 1961. Board eligible. Group, associate, solo, institution. Available July 1973.

OPHTHALMOLOGY—Steven M. Greenberg, M.D., 17-320 Whitcomb Street, Detroit, Michigan 48235. Wayne State University 1969. Solo or partnership. Available after July 1973.

ORTHOPEDICS—Pedro F. Bermann, M.D., 21 Hillcrest Road, West Caldwell, New Jersey 07006. University of Chile 1963. Group or partnership. Available March 1973.

Ralph Kuhn, M.D., 860 Main Street, Hackensack 07601. Tel Aviv (Israel) 1968. Board eligible. Partnership or group. Available July 1973.

R. Loyde Haney, M.D., 214 East 30th Street, New York 10016. Miami 1964. Board eligible. Solo, partnership, or group. Available July 1973.

OTOLARYNGOLOGY—Takamitsu Nakamura, M.D., 3428 Woodcock Court, Memphis, Tennessee 38116. Osaka University (Japan) 1960. Board certified. Available July 1973.

Stefan A. Kucincki, M.D., 20 Cedar Street, Taunton, Massachusetts 02780. Warsaw (Poland) 1959. Board certified. Group or association. Available June 1973.

PEDIATRICS—Joh W. Kim, M.D., 1770 Grand Concourse, Apt. 1-L, Bronx 01457. Pusan (Korea) 1965. Board eligible. Group, partner, or solo. Available July 1973.

Paul Avondoglio, M.D., 42-30 Hampton Street, Elmhurst, New York 11373. SUNY (Downstate) 1969. Board eligible. Group or partnership. Available July 1973.

Chun H. Lu, M.D., 647 Albany Avenue, Apt. 1-F, Brooklyn, New York 11203. Tai-Wan 1965. Board eligible. Group, partnership, association. Available July 1973.

Yun Chul Pak, M.D., 1533 Townsend Avenue, Apt. 4-H, Bronx, New York 10452. Cho-Nam University (Korea) 1965. Board eligible. Group, solo, or associate. Available July 1973.

Yong-Ho Shin, M.D., 3081 Edwin Avenue, Fort Lee (NJ) 07024. Korea 1964. Board eligible. Group or partnership. Available.

Nursel Eryilmaz, M.D., 14235 Triskett Road, Apt. 202, Cleveland 44111. Ege University (Turkey) 1964. Board eligible. Group or hospital. Available July 1973.

RADIOLOGY—Nurettin Eryilmaz, M.D., 14235 Triskett Road, Apt. 202, Cleveland 44111. Ankara University (Turkey) 1955. Board certified. Group or hospital. Available July 1973.

Sudan Deuskar, M.D., 1567 McGregor Avenue, Montreal 109, P.Q., Canada. Bombay (India) 1968. Board eligible. Group, associate, partnership. Available July 1973.

SURGERY—Chun Hyun Oh, M.D., 98-30 57th Avenue, Apt. 9-L, Corona, New York 11368. Korea 1966. Board eligible. Group, partnership, or solo. Available.

Romualdo M. Laygo, M.D., 28-14 Brookhaven Avenue, Far Rockaway, New York 11691. Tomas (Manila). Solo, group, or partnership. Available.

Suraphol Arkkrapridi, M.D., 4545 Palisade Avenue, Union City, New Jersey 07087. Thailand 1966. Board eligible. Group, partnership, or solo. Available.

Ashwin Mehta, M.D., Church Homes Hospital, 100 North Broadway, Baltimore 21231. Baroda (India) 1960. Board eligible. Full time in hospital or institution. Available July 1973.

THORACIC AND CARDIOVASCULAR SURGERY—Ricardo M. Cuaycong, M.D., Box 68, Happy Valley Road, South Williamson, Kentucky 25661. Tomas (Manila) 1961. Board certified in General Surgery. Board eligible in Thoracic and Cardiovascular Surgery. Group, partnership, or solo. Available July 1973.

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Methyltestosterone N.F. - 25 mg.

DESCRIPTION: Methyltestosterone is 17β-Hydroxy-17-Methylandrost-4-en 3-one.

ACTIONS: Methyltestosterone is an oil soluble androgenic hormone.

INDICATIONS: In the male: 1. Eunuchoidism and eunuchism. 2. Male climacteric symptoms when these are seconlary to androgen deficiency. 3. Impotence due to androgenic deficiency. 4. Postpuberal cryptorchidism with evidence of hypogonadism.
Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued.

PRECAUTIONS: Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity.

CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage.

WARNINGS: If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastic breast carcinoma. If this occurs, the drug should be discontinued.

ADVERSE REACTIONS: Cholestatic Jaundice • Oligospermia and decreased ejaculatory volume. • Hypercalcemia particularly in patients with metastic breast carcinoma. This usually indicates progression of bone metastases. • Sodium and water retention. • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia.

DOSAGE AND ADMINISTRATION: Dosage must be stricly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following chart is suggested as an average daily dosage guide.

INDICATION	Average Daily Dosage Tablets
In the male:	
Eunuchoidism and eunuchism	10 to 40 mg.
Male climacteric symptoms and impotence due to androgen deficiency	10 to 40 mg.
Postpuberal cryptorchism	30 mg.

HOW SUPPLIED: 5, 10, 25 mg. in bottles of 60, 250.

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and the psychotropic action of Valium® (diazepam).

Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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Donald C. Cannon

Donald C. Cannon, M.D., Ph.D.
Director

25 YEARS

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The Venereal Disease Epidemic:

How To Use The Laboratory

In our newly revised "Laboratory Aid" (see below) devoted to diagnosis and treatment of syphilis and gonorrhea we quote Dr. Sidney Olansky: "Therefore, we have reached the point where the serologic problems associated with syphilis almost always can be resolved with the proper use of two tests: the VDRL slide test and the FTA-ABS test." ("Serodiagnosis of Syphilis" in The Medical Clinics of North America *56*:1145, 1972.) From our broad experience in laboratory services devoted to the diagnosis and follow-up of syphilis we know that the "almost always" part of Dr. Olansky's statement describes those situations which are most troublesome to physicians.

The VDRL test is somewhat insensitive in very early syphilis. Thus the FTA-ABS test, not ordinarily considered a screening procedure, may sometimes be the test of choice in those instances when the physician suspects early syphilis in the face of a "Non-reactive" VDRL test.

When a diagnosis of syphilis has been made, the efficacy of treatment should be checked by *periodic quantitative VDRL tests*—not by the FTA-ABS test, which may remain reactive for life even in cured syphilis.

False positive VDRL tests are usually transient and of low titer. If reactivity persists, the clinician should suspect an underlying "auto-immune" disturbance, perhaps SLE. Although not as frequent, false positive FTA-ABS tests also occur, usually because there is another disease involved; however, final resolution may not be possible until autopsy, if at all. The question of whether or not to start antibiotic therapy becomes strictly a clinical decision.

A recently described modification of the FTA test using CSF is available from our laboratory and may be of help for physicians faced with the possibility of neurosyphilis in older patients with *sero*-negative VDRL and reactive FTA-ABS tests. (Brit. J. Ven. Dis. *48*:97, 1972.)

Some Words on Gonorrhea

Unfortunately, a simple inexpensive screening test analogous to the VDRL is not yet available for gonorrhea. Transgrow Collection Kits make the services of our reference laboratory available to any physician seeking "bacteriological" confirmation of GC.

The Complement Fixation test for *N. gonorrhoeae* may be of value in uncovering "hidden" GC in the relatively asymptomatic female and in the Asian variety of gonorrhea.

In Summary

Bio-Science Laboratories offers an exceptionally complete array of tests to aid in the diagnosis of both syphilis and gonorrhea; our new booklet, "Laboratory Aids for the Diagnosis and Treatment of Gonorrhea and Syphilis," is available at no cost or obligation to guide clinicians in the selection of the appropriate tests and in the interpretation of test results.

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Complement-fixation Test for antibodies to
N. gonorrhoeae
Routine culture for GC (local clients)
Transgrow Collection Kit for GC cultures
(for mailed specimens)

Bio-Science Laboratories

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Philadelphia Branch:
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7600 Tyrone Avenue
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Gentlemen: Please send me—

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☐ A STARTER LAB PACK containing a small supply of postage-paid mailing containers and FEE SCHEDULE.

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FREE! Laboratory Aids for the Diagnosis and Treatment of Gonorrhea and Syphilis



This 12-page booklet, written by Drs. Olitzky and Blaker of the staff of Bio-Science Laboratories, contains a clear and graphic summary of the value and limitations of laboratory technics in the assessment of these venereal disease problems. You will find it to be a quick and ready reference to update yourself in this important area of laboratory medicine. Copies are available to physicians and lab personnel without obligation. Simply fill out and mail this coupon.

ANNOUNCEMENTS

Seminar on Ethics in Biomedical Sciences

The College of Medicine and Dentistry of New Jersey announces a series of four "President's Seminars" on ethics in biomedical sciences. These are made possible by a special grant from Merck and Company of Rahway. Sessions will be held at the Rutgers Medical School, CMDNJ, University Heights Campus, Piscataway, on two Wednesdays in April and two in May. The schedule is as follows:

April 11 (7 p.m.)	Informed Consent Vincent P. Collins, M.D. University of Texas
April 25 (5 p.m.)	Genetic Counseling James R. Sorenson, Ph.D. Princeton University
May 9 (7 p.m.)	Definition of Death Robert M. Veatch, Ph.D. Institute of Society, Ethics, and the Life Sciences
May 30 (5 p.m.)	World Health Organization and Mental Health T. Adeoye Lambo, M.D. World Health Organization

A question and answer period will follow each presentation. Further information may be obtained by writing to the College of Medicine and Dentistry, 100 Bergen Street, Newark 07103.

Clinical Application of Basic Sciences

The last program in the series on the basic sciences, offered by the Burlington County Memorial Hospital, will be held on April 12. The subject of the presentation is "Myeloproliferative Disorders.

Lectures are supported by grants from Merck, Sharp, and Dolme, Schering Laboratories, and Upjohn Company. Sessions convene at 3:30 p.m. in the Summey Building. AAFP gives one and a half credits per lecture. Additional information may be obtained from the Department of Medical Education, Burlington County Memorial Hospital, Mount Holly.

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in a series on continuing education in psychiatry:

April 11	Pharmacotherapy of Mental Disorder George M. Simpson, M.D.
April 26	Pharmacotherapy of Mental Disorder Nathan S. Kline, M.D.
May 16	Existential Psychiatry Donald H. Gent, M.D.
May 24	Family Therapy Jay W. Fidler, M.D.

Sessions are held at the hospital, 19 Prospect Street, Summit, and convene promptly at 3 p.m. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education at the hospital.

Graduate Lectures in Surgery

Additional programs in the "Distinguished Lecture Series" offered by the Department of Surgery of the New Jersey Medical School (CMDNJ) have been listed as follows:

April 16	Experience in Civilian Disasters Worthington G. Schenk, Jr., M.D. Chairman, Department of Surgery SUNY at Buffalo
May 7	Far Advanced Arteriosclerotic Occlusive Disease of Lower Extremities Ralph A. Deterling, Jr., M.D. Chairman, Department of Surgery Tufts School of Medicine

The lectures are held at 4 p.m. in the amphitheater, 2nd floor, Martland Hospital, Newark. There is no charge. Guarded parking is available in parking area "M" at 12th and Bergen Streets. Other lectures will be announced in a later issue. For further information, write to Eric J. Lazaro, M.D., Professor of Surgery, Martland Hospital unit, CMDNJ, 65 Bergen Street, Newark 07107.

Radiologic Seminars

Rutgers Medical School (CMDNJ) announces the following program in its series of seminars in radiology:

April 18	Diagnosis of Renal Masses Howard M. Pollack, M.D. Episcopal Hospital
May 16	Head and Neck Cancer Patrick J. O'Kelley, M.D. St. Peter's General Hospital

Sessions convene at 5 p.m. in Link Room 203 at the Basic Science Building, Rutgers Medical School, New Brunswick—no fee. Further information may be obtained by writing to Charles P. diLiberti, M.D., Raritan Valley Hospital, 257 Greenbrook Road, Green Brook, New Jersey 08812.

Seminar on Family Planning

A tuition-free seminar in family planning for family practice physicians and any interested specialist, sponsored by the American College of Obstetricians and Gynecologists and Temple University will be held April 29 to May 4 in Philadelphia. It will focus on various aspects of family planning: the chemical and mechanical means of contraception; reproductive anatomy; physiology and biochemistry; the role of allied health personnel in family planning; and demography, human sexuality, and socio-psychologic aspects of family planning. To help defray expenses, a per diem will be paid to physicians accepted for the courses. For further information, please write to Howard Osofsky, M.D., Temple University, 3400 North Broad Street, Philadelphia 19104 (telephone 215-221-4110).

Course on Trauma

Announcement is made of a course on trauma sponsored by the American College of Surgeons for May 9 to May 12, 1973. The course will be presented at the Sheraton-Chicago Hotel in Chicago. It will emphasize, but not be limited to, the handling of fractures. For more details, write to the Committee on Trauma, c/o Ralph Lidge, M.D., 1300 East Central Road, Arlington Heights, Illinois 60005.

Camp for Diabetic Children

Remind the parents of your diabetic children that the New Jersey Diabetes Association continues, as it has over the years, to provide a good camp for diabetic children at Stillwater, New Jersey—Camp Nejeda. The facilities have been expanded and its activities' program is bigger and better than ever. For a brochure and further information, please write to Mr. Herbert Burleigh, Executive Director, New Jersey Diabetes Association, 317 Belleville Avenue, Bloomfield 07003.

World Conference on the Environment

The World Medical Association is cosponsoring a Conference on the Human Environment, October 23-26, 1973, in Primosten, Yugoslavia, in collaboration with the American Medical Association and the United States Department of Health, Education, and Welfare. The program covers pollution, the effects of urbanization, housing, waste disposal, water supply, nutrition, radiation, and other factors on humans. The responsibilities of the medical and allied professions in improving the environment will be emphasized.

This meeting is a follow-up on the United Nations Stockholm meeting of June 1972, but because it will be attended by members of the Eastern bloc countries (who were absent from the earlier meeting), it should have a greater impact on international understanding and good will.

Board and lodging will be under $10 a day. Registration blanks can be obtained from The World Medical Association, 10 Columbus Circle, New York City 10019, or the Council on Environmental and Public Health of the American Medical Association, 535 North Dearborn Street, Chicago 60610. The World Medical Association is made up of 58 national medical associations.

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MEETINGS OF MEDICAL INTEREST

This listing has been compiled by the Academy of Medicine of New Jersey. For additional information, including exact time of meetings, write to the society or hospital listed.

April

10 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Granulomatous and Ulcerative Colitis

11 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Renin and Hypertension

11 **Academy of Medicine of New Jersey and Clara Maass Memorial Hospital**
Clara Maass Hospital, Belleville
Carcinoma of the Cervix

11 **Academy of Medicine of New Jersey**
B. S. Pollak Hospital
Jersey City
Proper Use of Antibiotics

11 **Academy of Medicine of New Jersey**
Rutgers Medical School
New Brunswick
Coronary Artery Disease

11 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Pharmacotherapy of Mental Disorders

12 **Academy of Medicine of New Jersey and Essex County Medical Society**
Carriage Trade, East Orange
Foundations for Health Care Evaluation—"Hennepin Plan"

17 **Academy of Medicine of New Jersey**
Martland Hospital
Newark
Thoracic and Cardiovascular Cases

18 **Academy of Medicine of New Jersey and Clara Maass Memorial Hospital**
Clara Maass Hospital, Belleville
Streptococcal Infections

18 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Medicolegal Problems in Daily Practice

18 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Ventricular Dysrhythmias

18 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Congenital Heart Disease in the Adult

24 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Cardiology

25 **Academy of Medicine of New Jersey and Clara Maass Memorial Hospital**
Clara Maass Hospital, Belleville
Diseases of the Adrenal Gland

25 **Academy of Medicine of New Jersey**
Hackensack Hospital, Hackensack
Microbiology of Female Genital Tract

25 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Heart Block

25 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Coronary Artery Surgery

26 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Mortality Conference

26 **Academy of Medicine of New Jersey and New Jersey Radiological Society**

The Hospital Center at Orange
Interesting X-rays of the Month

26 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Pharmacotherapy of Mental Disorders

30 **Academy of Medicine of New Jersey**
Ancora Psychiatric Hospital
Hammonton
Hypertension

May

2 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Hypophyseal Pituitary Diseases

2 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Hypoglycemia

2 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Pacemakers

8 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Hypoglycemic Syndromes

8 **Academy of Medicine of New Jersey**
Paul Kimball Hospital
Lakewood
Management of Renal Failure

9 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Medical Problems in Anesthesiology

9 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Exercise Stress Testing

12-15 **The Medical Society of New Jersey**
Haddon Hall, Atlantic City
Annual Meeting

13 **Academy of Medicine of New Jersey**
Princeton University, Princeton
Heavy Particles in Radiation Therapy

16 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Existential Psychiatry

16 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Arterial and Venous Pressure Monitoring

16 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Lymphoproliferative Diseases

22 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Recent Advances in Psychiatry

23 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Medical-Surgical Cardiology Conference

23 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Potpourri

23 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Diabetic Neuropathy

24 **Academy of Medicine of New Jersey and New Jersey Radiological Society**
The Hospital Center at Orange
Interesting X-rays of the Month

24 **Academy of Medicine of New Jersey and Fair Oaks Hospital**
Fair Oaks Hospital, Summit
Family Therapy

30 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Management of Shock

30 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Mortality Conference

30 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Difficult Diabetic Patient

June

6 **Academy of Medicine of New Jersey**
Rutgers Medical School
New Brunswick
Annual Awards Dinner

6 **Academy of Medicine of New Jersey and Fair Oaks Hospital**
Fair Oaks Hospital, Summit
Psychosurgery Today

12 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Cardiology

13 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Lipid Disorders

19 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Rheumatic Diseases

20 **Academy of Medicine of New Jersey and the Radiological Society of New Jersey**
The Hospital Center at Orange
Interesting X-rays of the Month

OBITUARIES

Dr. Marion J. Ciepielowski

Death came on February 1, 1973, to Marion J. Ciepielowski, M.D., who was 66 years old at the time of his passing. He was a graduate of Cracow University in Poland in 1934, not to mention Buchenwald, where he was a prisoner at the concentration camp for four years during World War II. From 1945 to 1951, he worked with the Allied Red Cross in Central Europe and came to the United States in 1952. He was attached to Roosevelt Hospital in Metuchen, serving in positions of increasing responsibility, eventually becoming Assistant Medical Director.

Dr. Dean H. LeFavor

A past-president of our Burlington County Medical Society, Dean H. LeFavor, M.D., died on January 6, 1973. He was a well-known south Jersey family doctor who had retired from active practice in 1965. He was a Jefferson Medical College alumnus, class of 1924. Dr. LeFavor had several tours of duty as fire surgeon and as police surgeon in the borough of Palmyra, and he was a member of the Board of Health there.

Dr. Frank A. Manzione

On January 14, 1973, at the age of 77, Frank A. Manzione, M.D., died at his home. Born in 1896, he received his M.D. degree from Boston University's medical school in 1934. He was a general practitioner much interested in geriatrics, and was a Fellow of the American Geriatric Association. Dr. Manzione retired from active private practice in 1964. He has been a member of our Passaic County Medical Society.

Dr. Marie E. Russell

Marie E. Russell, M.D., died on January 2, 1973, at the untimely age of 57. She was a 1944 alumna of the Women's Medical College. She did private practice of pediatrics from 1947 to 1964 and for the next five years was a staff physician at Elwyn Institute at Media, Pennsylvania. In 1969 she became assistant medical director of the Woodbine State Colony. Dr. Russell was a member of our Camden County Medical Society.

BOOK REVIEWS

U. S. Health Care: What's Wrong and What's Right. Stephen P. Strickland, Ph.D. New York, Universe Books, 1972. Pp. 127. (Softback—$2.45)

This short, well written, and timely soft-cover book is an excellent survey of the current opinion of both our medical and non-medical citizens on the needs and priorities of health care in our country. It was encouraging to learn that the American people still have great confidence in their physicians but discouraging to know that we still fail to provide good health care to so many. That our citizens rank health care among their chief preoccupations is no surprise. That health care professionals seem not to have the solution for providing good health care for all is a disappointment.

Potomac Associates has done a service for all of us in crystallizing the various points of view in health care. For it is only when we know our problems that we can find solutions for them. Once more the handwriting is clear. Our people demand good health care without undue financial hardship for all. They want physicians to guide them but if we fail to lead . . . there are others.

Recommended and should almost be on a required reading list.

Gerald F. Hansen, M.D.

Advances in Forensic and Clinical Toxicology. A. S. Curry. C.R.C. Press, Cleveland, 1972. Pp. 280. Illustrated. ($32.50)

The credentials of the author of this very well-written and well-organized book are outstanding. A forensic pathologist and toxicologist of many years' experience, he is director of the home office, Central Research Establishment of the United Kingdom. The author himself read over 5,000 articles and publications in compiling his book and lists 1,500 current references in the appendix, all of which were catalogued and corroborated by his staff. The presentation, however, is more than just a dry reference work, since it is filled with interesting philosophical excursions and speculations.

The present field of forensic and clinical toxicology is comprehensively covered. There are extensive sections on common household and industrial toxins and very detailed treatments of cannabis, LSD, morphine, and other compounds causing so much concern these days under the category of drug abuse. Methods for the detection of specific drugs and classes of drugs are well detailed. Experimental methods and automation are carefully discussed. The author gives many clinical examples of the effects upon humans and animals of the substances covered and discusses the gross and microscopic abnormalities produced. He details the biochemical actions of the compounds and their effects on cellular function, metabolic processes, and enzyme systems.

If more authors wrote with an interesting style and with the obvious enthusiasm for their subject matter which Dr. Curry demonstrates, then important reference books (such as this is) would be pleasanter and easier to read. This publication will be of interest to toxicologists, pathologists, public health physicians, industrial physicians and to anyone who has the occasion to treat or to diagnose any illness related to a chemical toxin.

Melvin H. Freundlich, M.D.

Rheumatic Fever. Edition 2. Milton Markowitz M.D. and Leon Gordis, M.D. Philadelphia, Saunders, 1972. Pp. 309. Illustrated. ($11.50)

Rheumatic fever is one of medicine's more interesting diseases, germinating in a sometimes inapparent streptococcal infection and occasionally terminating in chronic cardiac disease. The "before," "during," and "after" of rheumatic fever are discussed in a monograph by Dr. Markowitz and Dr. Gordis which is eminently readable and generally informative. It covers all aspects of the disease from the biology of the streptococcus and its epidemiology, to the pathology, clinical manifestations, diagnosis, treatment, and sequelae of the acute disease. Prevention of initial attacks and recurrences are discussed as are community health services. An appendix lists the Jones criteria for "guidance in diagnosis" and outlines a method for culturing the throat.

The book is thorough but not encyclopedic; a search for information on changes in the white blood cell count during the acute disease was unrewarding, although mentioned in my general medical text. Suggestions for up to nine months of bed rest and gradual ambulation in carditis (based only on clinical impression) seem extreme even if careful diagnostic criteria are used. The emotional trauma of close to a year of forced incapacitation should not be ignored. Despite these minor criticisms, I found *Rheumatic Fever* to be informative and enjoyable reading.

Lonnie B. Hanauer, M.D.

Review of Zinsser Microbiology, 15th Edition. Edited by Wolfgan K. Joklik, Ph.D., and David T. Smith, M.D. New York, Appleton-Century-Crofts, 1972, Pp. 1,120. Illustrated ($23.75)

This is a handsome book both in size and content. It is well bound, attractively printed, and beautifully illustrated. The 24 contributors are about equally divided between M.D.s and Ph.D.s. Included are sections on bacterial physiology, immunology, pathogenic bacteria, Spirochaetales, Richettsiales, basic virology, clinical virology, medical mycology, and medical parasitology. Three sections (bacterial physiology, immunology, and basic virology) are new with this 15th edition (and make up almost half of the book) and are excellent reviews of current knowledge in these areas in which progress is being made so rapidly. After each of the 95 chapters, suggestions for further reading include book reviews and selected papers. It is interesting to note that almost all of these references (except those dealing with historical matters or original reports) are dated 1968 or later.

The editors state in the preface that this is a "new textbook designed primarily for the medical student working within the framework of a modern core curriculum" (previous editions were directed also to practicing physicians). I disagree. This book should be near to the hand and eyes of every practicing pathologist, and all other specialists who are involved with infectious or immune complex diseases. Here is a scholarly and well-written edition of a grand textbook first published in 1910. I highly recommend it to all physicians who are still "students" of the practice of medicine.

Hugh F. Luddecke, M.D.

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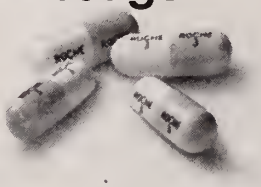
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...nt Note: This drug is not a simple analgesic. Do ...minister casually. Carefully evaluate patients be...rting treatment and keep them under close su...n. Obtain a detailed history, and complete ...l and laboratory examination (complete hemo...rinalysis, etc.) before prescribing and at fre...ntervals thereafter. Carefully select patients, ...g those responsive to routine measures, contra...d patients or those who cannot be observed fre... Warn patients not to exceed recommended ... Short-term relief of severe symptoms with the ...t possible dosage is the goal of therapy. Dosage ...be taken with meals or a full glass of milk. Sub...alka capsules for tablets if dyspeptic symptoms ... Patients should discontinue the drug and report ...ately any sign of: fever, sore throat, oral lesions ...oms of blood dyscrasia); dyspepsia, epigastric ...mptoms of anemia, black or tarry stools or other ...ce of intestinal ulceration or hemorrhage, skin re..., significant weight gain or edema. A one-week ...riod is adequate. Discontinue in the absence of a ...ble response. Restrict treatment periods to one ... patients over sixty.

...ons: Acute gouty arthritis, rheumatoid arthritis, ...atoid spondylitis.

...indications: Children 14 years or less; senile pa... history or symptoms of G.I. inflammation or ul...n including severe, recurrent or persistent dys... history or presence of drug allergy; blood ...sias; renal, hepatic or cardiac dysfunction; hy...sion, thyroid disease; systemic edema; ...itis and salivary gland enlargement due to the ...olymyalgia rheumatica and temporal arteritis; ...s receiving other potent chemotherapeutic ... or long-term anticoagulant therapy

...gs: Age, weight, dosage, duration of therapy, ex... of concomitant diseases, and concurrent potent ...therapy affect incidence of toxic reactions. Care...struct and observe the individual patient, espe...e aging (forty years and over) who have ...ed susceptibility to the toxicity of the drug. Use ...effective dosage. Weigh initially unpredictable ...s against potential risk of severe, even fatal, re... The disease condition itself is unaltered by the ...se with caution in first trimester of pregnancy ...nursing mothers. Drug may appear in cord blood ...east milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

Precautions: The following should be accomplished at regular intervals: Careful detailed history for disease being treated and detection of earliest signs of adverse reactions; complete physical examination including check of patient's weight; complete weekly (especially for the aging) or an every two week blood check; pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

Adverse Reactions: This is a potent drug, its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy; CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia; ulcerative stomatitis, salivary gland enlargement (B)98-146-070-G

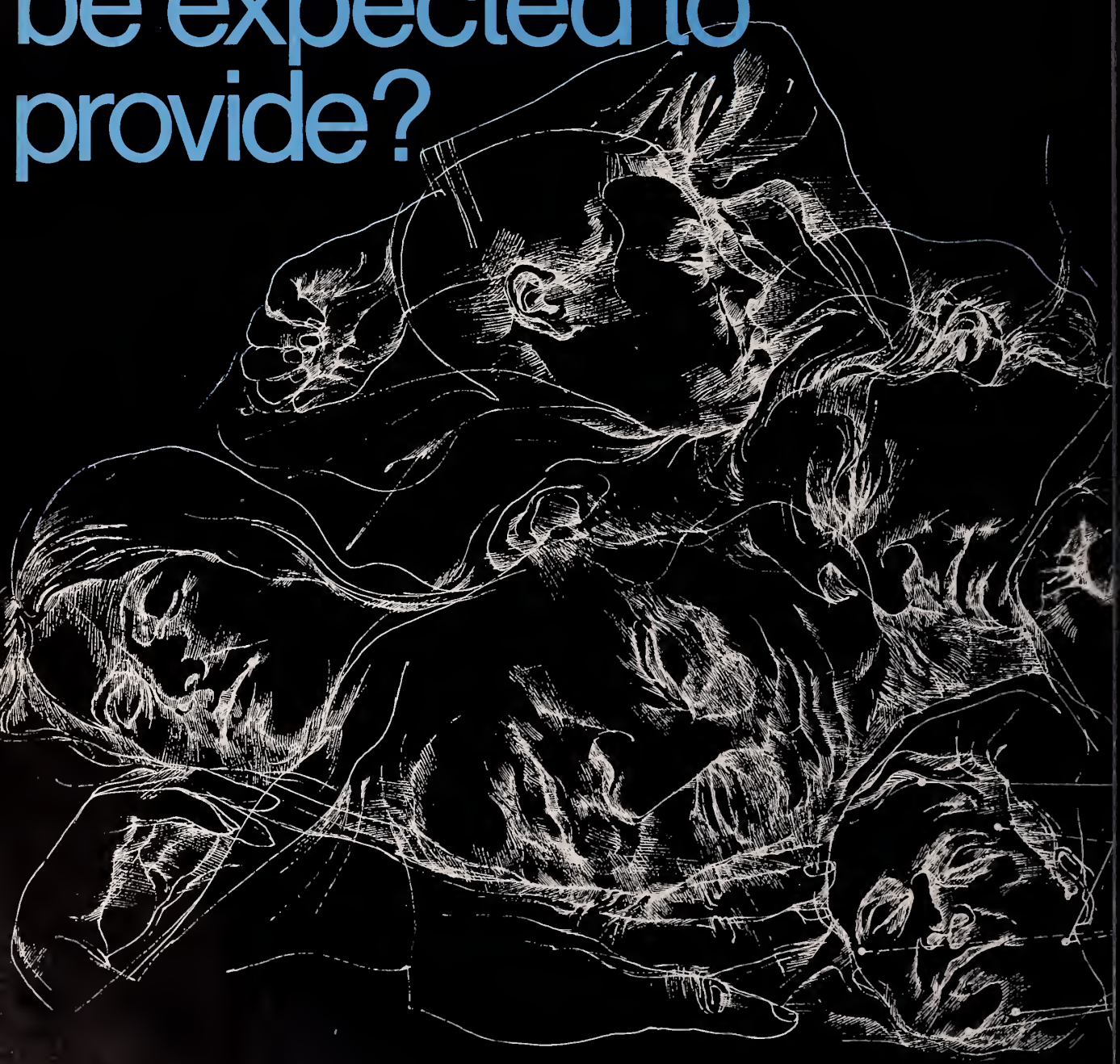
Serious side effects do occur. Select patients carefully (particularly the elderly) and follow them closely in line with the drug's precautions, warnings, contraindications and adverse reactions.

For complete details, including dosage, please see full prescribing information.

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What should a medication for sleep be expected to provide?



Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effect. Employ usual precautions in patients who are severely depressed, or with

Sleep for 7 to 8 hours without need to repeat dosage during the night

No sleep medication has been as rigorously evaluated in the sleep research laboratory as Dalmane. Insomnia patients given one 30-mg capsule of Dalmane at bedtime, on average: fell asleep within 17 minutes, had fewer nighttime awakenings, spent less time awake after sleep onset, and slept for 7 to 8 hours with no need to repeat dosage during the night.

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Dalmane (flurazepam HCl) has been shown to be consistently effective even during consecutive nights of administration. Thus there is little likelihood for the need to increase dosage to maintain therapeutic effect.

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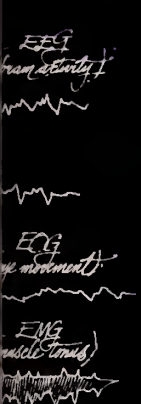
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Chronic tolerance studies have confirmed the relative safety of Dalmane (flurazepam HCl); no depression of cardiac or respiratory function was noted in patients administered recommended or higher doses for as long as 90 consecutive nights. In most instances when adverse reactions were reported they were mild, infrequent and seldom required discontinuance of therapy. Morning "hang-over" with Dalmane has been relatively infrequent. Dizziness, drowsiness, lightheadedness and the like have been the side effects noted most frequently, particularly in the elderly and debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

When your evaluation of insomnia indicates the need for a sleep medication, consider Dalmane—a single entity agent proved effective and relatively safe for relief of insomnia.

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atent depression or suicidal tendencies. eriodic blood counts and liver and kid ey function tests are advised during epeated therapy. Observe usual precau ons in presence of impaired renal or epatic function.

dverse Reactions: Dizziness, drowsi ess, lightheadedness, staggering, ataxia nd falling have occurred, particularly n elderly or debilitated patients. Severe edation, lethargy, disorientation and oma, probably indicative of drug intoler nce or overdosage, have been reported.

Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

Opinion & Dialogue

"Prescription drugs — who should determine the maker?"

Dispenser of Medicine

Clifton J. Latiolais
President
American Pharmaceutical Association



"Too many doctors are indifferent to the economic consequences of their decisions." So stated a recent issue of *Medical News Report* (December 4, 1972), an independent weekly newsletter published by former AMA Chief Executive F. J. L. Blasingame, M.D.

Doctor, are you indifferent...?

In discussing an anticipated increase in Blue Shield rates, Dr. Blasingame's newsletter had this to say:

"In general, it can be said, MD's have given the impression they are not particularly concerned with the increase in cost of health care to their patients...

"True, an MD's training is primarily scientific, but in the real world of practice, all of his scientific decisions have a price tag, or an economic impact. The economics of health care beckon the practitioner's attention. Concern for economics of medicine

Maker of Medicine

C. Joseph Stetler
President
Pharmaceutical Manufacturers Association



When the pharmacist recommends that a drug product other than the one ordered be dispensed, the prescriber invariably permits the change when he feels the best interests of the patient will be served.

Shortcomings of Pro-Substitution Argument

The fact remains that it is necessary for the prescriber to know that the change is being contemplated, and to be in a position to consent or demur. Without that opportunity, the unilateral decision of the pharmacist, made in the absence of clinical knowledge of the patient, could expose him to needless risks, and in addition, jeopardize the relationship between the professions of Pharmacy and Medicine. In my view, there is nothing in the pro-substitution argument that offsets these risks.

The Issue of Drug Knowledge

Substitution advocates claim that the primary justification for changing the rules is the desire to better utilize pharmacists' knowledge about drugs. Yet the pharmacist's task to keep current on the entire field of drug therapy, to some degree, puts him at a disadvantage. Most often, a practicing physician will need expert knowledge of no more than 25

Advertisement

hould be an obligation of medical ractice...

"Medical societies ought to con- uct continuing campaigns to point ut the substantial savings that could e realized thru deductible insurance nd protection for catastrophic ill- ess. At the very least, they should, in he patients' interest, question the actics of any insurance organization hat raises health care costs by forc- ng policyholders to buy insurance hey may not need or want and prob- bly won't ever use.

"Too many doctors are indiffer- nt to the economic consequences of heir decisions. Too many, for ex- mple, habitually hospitalize patients or the convenience of the MD. It's nonsense to deny such habits exist...

"Doctors, thru their medical so- ieties, have unhesitatingly appealed o their patients for support in the ight against government interference vith the private practice of medicine. And the public in the past has re- ponded. It's time the American Med- cal Association and state and local nedical societies paid off the debt by decisive action to hold down the cost of medical care."

Cost of Drugs

Insurance rates and hospital charges are only two factors in health care costs. The cost of drugs—both prescription and nonprescription—is another.

And when it comes to drug costs, the nation's pharmacists *are concerned*. Through their national professional society, the American Pharmaceutical Association, pharmacists are advising the public to use nonprescription medication cautiously and conservatively, and to seek the advice of their pharmacist before selecting or purchasing such drugs.

Outdated Laws

The pharmacist also is aware that when it comes to prescription drugs, often he has an even greater opportunity to reduce the cost to the patient—with no sacrifice in the quality of the medication dispensed. But in many states, outdated and antiquated laws prevent the pharmacist from engaging in drug product selection. "Drug product selection" simply means that the pharmacist functions in the patient's interest by consciously choosing, from the multiple brands available, a low-cost quality brand of the specific drug to be dispensed in response to the physician's prescription order.

Much *misinformation* has been purposely spread by those who stand to gain financially by maintaining high drug costs to the public. An endless stream of propaganda has emanated from the drug industry in an effort to persuade the medical profession that these so-called anti-substitution laws should be retained. And as long as these laws are retained, the drug industry will continue its current marketing practices which contribute unnecessarily to high drug costs to patients. These practices also are inviting government agencies to expand their restrictive controls on physicians and pharmacists.

APhA Efforts

As pharmacists, we are concerned about health care costs. We hope that every physician shares our concern on this vital issue, and will give his personal support to the constructive efforts APhA has undertaken in the interest of all patients.

(For a complete discussion of drug product selection, you are invited to request a free copy of the "White Paper on the Pharmacist's Role in Product Selection" from: American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C. 20037.)

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or 30 drugs that he selects to treat the majority of conditions encountered in his practice. Moreover, the physician's choice of a specific brand is based on his knowledge of the patient's medical history and current condition, and his experiences with the particular manufacturer's product.

Some substitution proponents have argued that the dispensing of a prescription is a simple two-party transaction between the pharmacist and the patient, and that a substituting pharmacist may avoid even a technical breach of contract by simply notifying the patient that he is making the substitution. I would judge that few courts would be sympathetic toward a pharmacist who substituted without physician approval and who undertook a legal defense that seeks to make the patient responsible for the pharmacist's actions.

Reduced Prescription Prices?

Substitution advocates are suggesting to the consumer, and particularly the consumer activist, that reduced prescription prices could follow legalization of substitution. We have seen absolutely no evidence to justify this claim. To the contrary, experience in Alberta, Canada, where substitution is authorized, suggests the opposite.

Many pharmacists understandably are concerned about the cost of maintaining multiple stocks of similar products. While there is no doubt that inventory costs rise when additional brands are stocked, it would be interesting to know how much they rise, and how many pharmacists actually stock *all* brands—of, say, ampicillin or tetracycline—or how long they keep "slow moving" products on their shelves before they are returned for credit. To ask that the industry eliminate multiple sources is to ask competitors to stop competing.

Drug Substitution—A License for the Unethical

Anti-substitution repeal would favor "corner cutting" pharmacists and manufacturers. For them, free substitution would be not a right, but a license. As an aftermath, it is quite likely that the confidence of both physicians and patients in the profession of Pharmacy would be eroded, as revelations about the unconscionable behavior of an undisciplined few were magnified in the press or in professional circles.

Summary

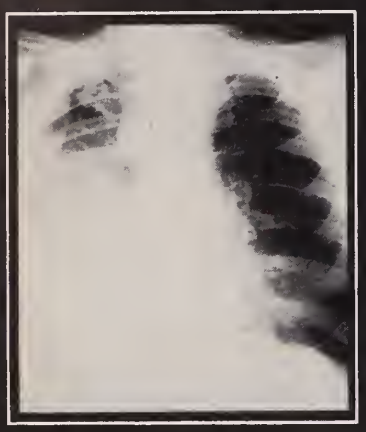
In short, what the American Pharmaceutical Association advocates as a broad-spectrum panacea looks to us to be not only a minority view (advocacy of substitution is by no means a uniform policy in Pharmacy), but also an extraordinarily costly and ineffective remedy, whose side effects are odious. We believe (1) that an impressive majority of pharmacists prefer to work with Medicine and with industry, for the consumer, and for the general good, (2) that they seek the privilege to substitute when the patient might gain and when the patient's doctor agrees, and (3) that they seek to work for the resolution of genuine grievances openly and professionally.

(For amplification of PMA views, please write for our booklet, "The Medications Physicians Prescribe: Who Shall Determine the Source?" It is available from: Pharmaceutical Manufacturers Association, 1155 Fifteenth Street, N.W., Washington, D.C. 20005.)

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While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

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EDITORIALS

Richard I. Nevin



The Medical Society of New Jersey will not be the same without Dick Nevin, who retires on June 1, 1973, as Executive Director of our Society. For two decades he has, in effect, been chief of staff of our organization. He is one of the very few nonphysicians to have become an honorary member of The Medical Society of New Jersey.

Dick has had a long and honorable interest in medicine. His undergraduate concentration at Fordham University was, indeed, in premedical studies. And he so distinguished himself for achievements in the humanities that it was not surprising to have him appear as playwright and producer of college plays. Following graduation from Fordham, he became a medical student at what was then the Long Island College of Medicine, but the depression caught up with him and he was forced to abandon medical studies.

St. Peter's College, established in 1874, had closed its doors during World War I. In September 1931 he was appointed the first lay member of its new faculty, entering the Department of English and Speech. He advanced rapidly and soon was named head of that Department. Along this course, he found time to pursue graduate studies at Columbia and Fordham Universities. For twenty years, he continued to serve the students and faculty of St. Peter's, and he organized and directed the first Bureau of Public Relations of that College. At one time, he also headed up their Bureau of College Placement. During World War II, he was their Registrar.

As all of us know (and to overwork that much-abused word *charisma*), Dick has a special charm that goes with the concept of charisma. He exudes that attractive (and not too common) combination of firmness and gentleness. He provides a quiet but unmistakable leadership. He is a well-known and popular public speaker, a much-in-demand toastmaster, an organizer *par excellence*, and the appropriate recipient of the phrase "a jolly good fellow." His imprint will long remain on The Medical Society of New Jersey.

Ralph K. Hollinshed, M.D. 1884-1973

The 151st President of The Medical Society of New Jersey died on March 27, 1973, at the grand age of 89. A board diplomate in internal medicine, he had been senior cardiologist at The Cooper Hospital in Camden. For over a decade he was the Secretary of the Gloucester County Medical Society, and had a tour of duty as its President. He became a member of the Board of Trustees of The Medical Society of New Jersey in 1936 and served two terms as its Chairman, before being elected 2nd Vice-President in 1940.

Dr. Hollinshed was a quiet gentleman who rendered service not only to his patients but

to organized medicine in general. And in rendering that kind of service, he was always in the thick of things. From his first election to our Board of Trustees until his retirement in 1960, he was in the front line when it came to plunging into Medical Society service. He was one of our most valuable members for many years.

The Changing Role of the Hospital in the Practice of Medicine*

The hospital has become the all-important workshop for the physician. Also, it is the hospital, not the physician, that accounts for most of the rise in the cost of medical care. There was a time when physicians controlled their hospital workshops. The medical boards of the individual hospitals were the important policy-making bodies. This was true in municipal institutions and in voluntary and private hospitals. The boards of trustees of the voluntary institutions did show intense interest, did guide and guard, and did make important contributions, and usually underwrote deficits. They rarely interfered with medical policy and medical decisions.

The function of the lay boards has changed, for the contribution they make to cover any deficits today is minimal indeed, when compared with the over-all budget. In lieu of philanthropy, we now have the motivation of seeking to control and determine major policies in the hospital. With the advent of local community control, there is the additional feature of pressure groups, making particular demands and entering intensively into the decision-making process. Community interest adds a broader base to former philanthropic support of hospitals. There are many advantages in community interest, but there are some hazards too.

*Editorial, February 1, 1973, New York State Journal of Medicine.

The income of most hospitals is now derived from other sources: from Medicare; Medicaid; grant support; from other governmental sources; from fees paid for care in the institution by full-time hospital-based physicians who are under contract (that is, employees of the hospital); and from charges for outpatient and emergency care. Such sources of funds carry nearly the total budget of hospitals. In the old days the direct concern of members of the lay board was considerable. This naturally followed from the fact that they were footing the bill for the needs of the patient and for any inefficiency and inadequacy. This basis of interest has now been lost, somewhat at least.

No one would object to active participation of the lay board and organized community groups, but bald power and control by laymen present distinct dangers for the physician. Loss of the physician's independence can seriously involve patient care by the physician. Independence is precious in any sphere of activity, but in medicine it is imperative. No physician can be worth his salt as a man or as a physician, nor can he carry out his function as a true physician, if he has lost his independence.

Our aim should be to control, if we cannot stop, the expansion of any arrangement by hospitals that denigrates the physician and transforms the physician into a paid employee. Ultimately such a dependent employee must pay heed not only to his peers, but also to administrators and "power-seeking" members of the lay and community boards.

We must be realistic, however, for we cannot turn the clock back to the prior era. The movement of so many recent graduates, and of physicians already in practice, to become full-time, hospital-based employees has been with us for a long time. This policy is now so strongly established that it cannot be reversed without a complete revolution in medical care. The forces arrayed against such a reversal of what has become the established trend

are too powerful to be overcome without a grim fight and direct confrontation.

Recently there has been a decision in California to the effect that the very commonly existing arrangement of full-time, hospital-based physicians is illegal. The Committee on Hospital-Based Physicians of the Medical Society of the State of New York has urged that a similar legal test of the practice of medicine by hospitals be undertaken by the Council of the Society. Also several resolutions in the House of Delegates have requested that this be done, and even that special legal counsel be employed for this purpose. It may be worth noting that the victory in California does not imply an identical decision will be obtained in New York State. What is most disturbing is that the victory may be a Pyrrhic and short-lived one, for the powerful opposition in this State would simply have the legislature change the law specifically to their advantage, totally abrogating the significance of any such legal victory. What we seek is a permanent policy for a permanent solution which will be in our favor, not a temporary victory, soon to become meaningless.

One approach that may salvage the independence of the physician of old may be to spend our energy in acquiring our former due importance and the return of full control in the hospital proper. We must endeavor to restore the authority of medical boards in all ethical and medical decisions. Also, physicians must extend themselves to participate actively in the social and economic aspects of medical care.

This is a natural, logical, and legitimate interest, for no one is more involved in, nor has greater concern for, the care and welfare of the patient than the physician. He supersedes the administrator, the social worker, and the ancillary paramedical personnel of all kinds in this deep involvement with the patient.

That should be the cynosure of our efforts to become more than paid employees under the bidding of those who control the paychecks.

In every hospital the physicians on the staff should unite to protect the prerogatives of all physicians and their relationships to each other, their patients, and the administration. No individual physician can achieve this. He may have that authority for a while, but sooner or later that position is altered, and he finds himself again only a cog in the machine. As always, "he who pays the piper calls the tune."

The individual physician is at a distinct disadvantage in any dealings with the individual hospital and its fully-empowered administrator. Physicians must act together as a group, and the medical board is the proper local negotiating unit for every member of the medical staff. The further joining together of many medical boards as a larger organization to act in concert can be a most effective instrument for the preservation of the independence of the individual physician and a strong force to maintain his general welfare. A current illustrative example of what can be done by such unified action at the level of the medical boards is seen in the recent important concessions obtained from the Health and Hospital Corporation of New York City by the unanimous action of the members of the Advisory Council, consisting of representatives of the medical boards of the municipal hospitals.

Mutual concern is appropriate for the physician. This is distinct from union activity in the ordinary sense, such as striking to attain objectives. Nor do we need the power from extraneous affiliations; there is always too high a price for the professional to pay for such sources of strength. Our strength does not lie in such ordinary weapons of industrial unions; rather, it is still to be found in the superior service to grateful patients.

This is an important problem and concerns all physicians; it is charged with emotion, as it should be.

ORIGINAL ARTICLES

Coronary angiography was found to be a safe procedure at a community hospital.

Coronary Angiography in a Community Hospital*

Jerome J. Rolnick, M.D., William A. Sweeney, M.D., and Narayanan Natarajan, M.D./New Brunswick

Since Sones[1] and associates first demonstrated the feasibility of selectively catheterizing the coronary artery, many centers have undertaken coronary arteriography using either the original technic of Sones[1] or a percutaneous femoral artery route as described by Judkins.[2] Recent advances of coronary artery by-pass surgery and the size of the problem of coronary artery disease in this country have led many community hospitals into the field of coronary arteriography. There are estimated 200,000 new cases of angina each year in the United States, and there are probably 5 million people with this disease now living. Many of these are candidates for selective arteriography and all of them cannot be handled in the larger medical centers alone.

We recently published a review[3] of our ten years' cardiac catheterization experience at St. Peter's General Hospital, New Brunswick, New Jersey. This hospital serves a population area of about 500,000. Since we already had a functioning catheterization laboratory, we decided to undertake coronary arteriography in 1968. Because of our previous technic, the initial patients were studied with the Sones technic. We subsequently switched to the Judkins[2] percutaneous route because of its simplicity and speed. This paper is a review of our three years' experience. In analyzing our cases, we shall assess the risk of the procedure, the validity of the data, and the value of coronary arteriography in assisting the local physician with diagnostic problems in coronary artery disease.

All patients who have undergone coronary arteriography at St. Peter's Hospital are included in the study. The initial four cases were studies using brachial arteriotomy (Sones technic). The remaining patients were studied using the percutaneous femoral artery approach. Any outpatient referred for coronary arteriography is seen in the laboratory several days prior to admission for evaluation:

a. A complete history and physical examination are done by the cardiologist in the laboratory.

b. Routine laboratory work.

c. Vectorcardiography.

d. Electrocardiogram.

e. Exercise electrocardiogram (unless the referring physician specifically request this not be done). The exercise test is done on a standard treadmill with continuous monitoring. The exercise is begun at 1.5 mph and 5 per cent grade with increases every two minutes in either rate or grade until 70 per cent maximal predicted heart rate is obtained. If the patient is comfortable and there are no contra-indications, the exercise is continued to approach 85 per cent of predicted heart rate for age. The exercise is discontinued if at least 1 mm of ST segment depression is noted on monitor, or if four premature ventricular contractions occur per monitor field, or if the patient experiences chest pain, or if the patient is unable to continue because of dyspnea, or fatigue, or lack of motivation.

Immediately following exercise, lead III and V6 are recorded and again at two, four, and six minute intervals. Blood pressure is taken immediately after exercise. A DC defibrillator is present and ready for use at all times. An exercise test is considered positive if 1 mm ST segment depression occurs at 40 milleseconds beyond the R wave. The test is considered unsatisfactory if the expected 70 per cent maximal rate is never achieved. Patients on digitalis or beta blockers are not exercised unless they have discontinued the medications at least two days prior to the exercise.

* Read before the joint session of the Sections on Medicine, Cardiovascular Diseases, and Radiology, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 7, 1972. This work is from the Cardiopulmonary Laboratory at St. Peter's Hospital, New Brunswick, New Jersey.

The patient is then fluoroscoped on the same "cradle" in which the coronary angiogram will be done to familiarize him with the room and also to look for coronary artery calcification.

The patient is later admitted to the hospital. At this time, the radiologist runs some test cine pictures and decides on the film and intensity parameters to be used on the case.

Typical angina for the purposes of this report is defined as stress induced anterior chest pain directly relieved by rest or nitroglycerine. Significant coronary artery disease is defined as at least 50 per cent obstruction in at least one of the major coronary arteries.

Only two physicians are involved in doing this procedure. The patient receives mild sedation plus 0.5 mg atropine intramuscularly and Isordil® by mouth prior to the procedure. A cardiologist is in attendance, and there is continuous monitoring of the electrocardiogram and intraluminal aortic pressure. The great toe pulse distal to puncture site is also monitored during the procedure to insure against complications occurring at this site. All injections are by hand. To avoid arterial dissection by the catheter, a technician immediately informs the physician of a damping pressure. Permanent tracings are recorded on a 12 channel E for M direct writing monitor of the following items.

1. Electrocardiogram during all injections.

2. Left ventricular pressure and pullback from left ventricle to aorta.

3. Toe pulse following procedure.

4. Twelve-lead electrocardiogram following procedure.

The patient remains in the hospital until the following morning when he is rechecked prior to discharge by the cardiologist.

Results

Table I shows the breakdown of indications in 151 patients catheterized. Eight patients had cardiomyopathy and heart failure of unknown etiology. Interestingly, all eight had abnormal coronary arteriograms. An additional seven patients with rheumatic valvular problems underwent coronary arteriography in addition to cardiac catheterization because of advanced age or unusual symptoms. The remaining 136 patients were studied because of chest pain. Sixty per cent of this group had abnormal coronary arteries but only 30 were scheduled for or had coronary by-pass surgery at the time this paper was written. Analysis of the large group who had abnormal studies and were not scheduled for surgery showed no consistent pattern with respect to age, duration of symptoms, or severity of disease.

TABLE I
Analysis of 151 Cases

Concomitant to valvular catheterization	7	
Heart failure unknown etiology	8	
Chest pain	136	
Abnormal Coronary Arteriogram	82	(60%) *
Normal Coronary Arteriogram	53	(40%)
Coronary by-pass surgery	30	

*Percentage of those patients studied because of chest pain.

Complications

Eighteen complications occurred (Table II). Included in this group were five studies considered incomplete either because of femoral artery spasm or greatly dilated ascending aorta. These occurred early in our experience.

TABLE II
Complications

1. Arrhythmia other than ventricular fibrillation	6
2. Pyrogenic reaction	2
3. Temporary loss of dorsalis pedis pulse	2
4. Ventricular fibrillation	1
5. Myocardial infarction	2
6. Inadequate study	5
Total	18

The real complication rate is, therefore, about 7 per cent. All arrhythmia problems reverted to original rhythms by the evening of the day of catheterization. Bleeding at the site of the puncture wound has never occurred in our series. This is due to the close observation and bed rest in the hospital until time of discharge, usually 24 hours after the procedure. No deaths were recorded.

Clinical Impression and Exercise Testing

Table III demonstrates the correlation of history, exercise testing, and the combination when compared to angiographic findings.

When the history was positive, 79 per cent of

Table III

History-Positive

Angiography +	59	(79%) *
Angiography —	16	(21%) *
	75	

History-Negative

Angiography +	24	(48%) *
Angiography —	27	(52%) *
	51	

*Percentage based on total number of positive or negative histories.

Exercise Test-Positive

Angiogram +	31	(78%) **
Angiogram —	9	(22%) **

Exercise Test-Negative

Angiogram +	20	(55%) **
Angiogram —	16	(45%) **

** Percentage based on total number of positive or negative exercise tests.
76 performed adequate exercise tests.

History Positive and Exercise Positive

Angiography +	25	(87%)
Angiography —	4	(13%)
	29	(100%)

History Negative and Exercise Negative

Angiography +	14	(56%)
Angiography —	9	(44%)
	23	(100%)

patients showed significant coronary artery disease. With a negative history, however, approximately half had normal angiograms but 48 per cent had positive studies.

A similar experience was found with the exercise test. Seventy-six patients were considered to have adequate exercise tests according to previously noted criteria. In the group with a positive test 78 per cent also had abnormal coronary circulation. Nine patients with positive exercise findings had normal coronary anatomy. Here again, the correlation was poor when negative exercise testing was compared to angiographic findings. Less than half of the former group had normal coronaries whereas 55 per cent showed evidence of significant disease.

When the clinical impression and exercise test were combined, positive correlation was somewhat improved but negative combination still showed poor correlation with anatomic findings.

Collateral Circulation

The findings with respect to collateral circulation are summarized in table IV. The two interesting findings here were (1) that when collateral circulation was found a typical history of angina was also noted, and (2) a very high proportion of those patients with demonstrable collateral circulation also had ischemic exercise changes (85 per cent).

TABLE IV

Collateral Circulation

1. 100% had typical history of angina.
2. 85% had positive exercise testing.
3. 85% had evidence of ventricular dysfunction.
4. 65% abnormal angiograms showed some collateral circulation.

Risk of Procedure

Articles have recently reflected the preference of the Sones[1] or percutaneous femoral (Judkins[2]) technic for performing coronary angiography. Judkins[2] in a recent review noted morbidity and mortality during one year at his center. A large proportion of these patients were outpatients or one day admissions. This procedure has since been dropped. Our data showed a much lower morbidity when the two-day admission policy is carried out. Either approach is associated with a low morbidity and mortality. Choice depends on the experience of the catheterizer. In a community hospital many radiologists have been trained in the Seldinger[4] technics of percutaneous femoral artery puncture. They have almost daily experience in the other selective arterial studies by this method. It seems, therefore, a logical extension of their activity, especially in a community hospital where the weekly coronary case load is usually small.

Occasionally advocates of the "medical center only" approach to diagnostic coronary arteriography have noted that an open heart surgical team must be available for certain complications. In our experience this was not necessary in any case. All of the complications of

arteriography—arrhythmia or infarction—are medical. In the rare case of peripheral vascular thrombosis or occlusion, surgery, if necessary, is easily within the realm of any competent surgeon.

Our zero mortality compares favorably with other studies in whom mortality is a factor only in extremely high risk patients.

Validity of the Data

Again, as in our previous report,[3] we have shown a negligible incidence of repeated studies when patients went elsewhere for surgery. Preoperative evaluation is always made by the surgeon on the basis of films mailed to him from our laboratory. Only two studies were repeated elsewhere and these were done at our request because of technically inferior films. As our experience and technical competence has grown, the number of poor studies has shrunk to zero.

Value of Procedure

Indications for coronary arteriography generally fall into three major categories:

1. Diagnostic—to ascertain the presence or absence of coronary artery disease in the presence of symptoms or abnormal electro-cardiogram.

2. Presurgical—to evaluate the extent of coronary artery disease with an eye toward possible surgery.

3. As a concomitant to cardiac catheterization for rheumatic heart disease.

Our results indicate that in a community hospital setting the major portion of the studies fall into category 1. Approximately 75 per cent of patients with abnormal angiograms did not have surgery. The remaining patients gave no indication in their analysis as to why surgery was not performed. This would imply a patient and/or physician preference and would suggest that the coronary study was recommended in order to ascertain the presence or absence of coronary disease only.

Another noteworthy feature is the finding that 48 per cent of patients who underwent arteriography because of an admitting diagnosis of chest pain had normal coronary circulation. In many of these patients coronary arteriography was carried out as part of the diagnostic work-up for chest pain. Thus, coronary arteriography has taken its place beside the usual medical apparatus as an additional and more sophisticated tool in the diagnosis of coronary artery disease.

This history is still the most accurate approach when positive. Ancillary investigations such as exercise-testing increase historical approach when positive but help very little when negative. Still to be considered are the cases without anatomic coronary artery disease but with a positive history and/or exercise test. This group has recently been a center of great controversy, and various mechanisms such as small vessel disease, syndrone X, coronary artery steal, etc. have been proposed.

Collateral circulation appears to offer little protection against symptomatic angina or ischemic changes during exercise testing. This group may, however, have a longer survival, a subject not investigated in the review.

Conclusions

1. Coronary arteriography is a safe procedure done in a community hospital.

2. Because of the huge number of possible candidates for this study, some community hospitals must be equipped to share this burden with the medical centers.

3. Most studies done in the community today are primarily diagnostic angiograms. Coronary angiography thus has become another tool for the clinician to use in the handling of patients with chest pain.

4. When patients are referred for surgery the initial study is rarely repeated.

5. Analysis of other parameters, namely, clinical history and exercise testing had shown excellent correlation with angiography when positive but uncertain results when negative.

6. The educational value of the above conclusions in an active medical community is felt to

be very important for all physicians involved in the problem of chest pain and disposition of angina pectoris.

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New Pamphlet on Allergies

Allergic reactions are not new. Four centuries before the birth of Christ, for example, Hippocrates described an illness that today we know as asthma. But medical knowledge about hypersensitivity to things in the environment is a relatively recent development. The subject is explored in the new Public Affairs Pamphlet, *What Do We Know about Allergies?,* by Michael H. K. Irwin, M.D. It is available for 35 cents from the Public Affairs Committee, 381 Park Avenue South, New York City 10016.

Although, as Dr. Irwin points out, an allergy can simply be a nuisance for millions of people, it can be a "severe physical and psychological affliction." Dr. Irwin describes how a physician goes about investigating the source of the allergy and the treatment most commonly prescribed. Included are corticosteroid preparations such as hydrocortisone, prednisone, and prednisolone. But these must be used only under a doctor's supervision, for they are very strong medications.

Dr. Irwin also considers the importance of heredity and age in relation to allergy, and psychosomatic aspects. On the last, he writes: "It is generally agreed that tension, overwork, fatigue, fright, and extreme anger can precipitate or aggravate the symptoms of many allergies. But whether psychosomatic factors alone can actually cause an allergy to develop is a question that needs more study."

New "Prism" Magazine

The American Medical Association announces a new magazine directed to American physicians. First issue of the new publication, *Prism,* was mailed in April. It will be free to all members of the AMA, and will include physicians engaged in patient care and residents in their final year of training. Total circulation will be more than 200,000.

Addressing itself to the socioeconomic questions of health care and medicine, *Prism* is in response to the demands of physicians and its publication has been encouraged by medical specialty groups. Physicians have expressed the need for authoritative articles dealing with the social, ethical, economic, and philosophic implications of medicine.

This new journal provides a forum where the problems and challenges confronting medicine can be explored. It will include many opinions at variance with AMA policy. Ernest B. Howard, M.D., Executive Vice President of the AMA affirms the editorial freedom of the magazine: ". . . we will entertain viewpoints from the right, center, and left of the spectrum of issues that affect all of us."

Counter to the trend in the magazine business of reducing the physical size of out-size books to the more conventional 8½ x 11 inches, *Prism* will be 11 x 11. The size will allow greater graphic freedom for the display of editorial and pictorial content.

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Overdosage should be avoided in patients severely ill with ulcerative colitis.

Adverse Reactions: Varying degrees of drying of salivary secretions may occur as well as mydriasis and blurred vision. In addition the following adverse reactions have been reported: nervousness, drowsiness, dizziness, insomnia, headache, loss of the sense of taste, nausea, vomiting, constipation, impotence and allergic dermatitis.

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Synovectomy and replacement arthroptasty have been found to be useful in the management of rheumatic arthritis of the lower extremities.

Surgery in Rheumatoid Arthritis of the Lower Extremities*

Henry H. Sherk, M.D. and William T. Kimler, M.D./Camden

Between 1965 and the end of 1971, the Department of Rheumatology and Orthopedic Surgery at the Cooper Hospital in Camden collaborated in the treatment of 100 patients with rheumatoid arthritis. This paper has as its purpose a synoptic presentation of the types of operations we selected in this group of patients and a brief analysis of our results. We divided the operations into three categories: synovectomy, arthroplasty, and arthrodesis.

Synovectomy had as its purpose the removal of proliferating, destructive rheumatoid synovial membrane before that tissue could irreversibly erode articular cartilage, ligaments, and tendons. By performing this early in the disease we hoped to halt the destructive process and preserve a useful arc of painless motion. We recommended synovectomies to patients when six months of good but unsuccessful treatment had failed to eliminate pain, persistent swelling, and clinically palpable synovial thickening. Indications for synovectomy grew stronger when the disease produced early deformity such as flexion contracture.

When the disease process, however, had caused extensive changes within the joint we did not recommend synovectomy because of the propensity for such joints to develop adhesions which markedly limit motion. In more advanced cases we advised a reconstructive procedure or arthroplasty in an attempt to correct deformity, relieve swelling and pain, and restore motion.

We performed fusions of involved joints only rarely in this group of patients. Fusion of one joint places considerable stress on the adjacent joints. In rheumatoids (who so often go from remissions into relapses) immobility of one joint might require too much of an adjacent articulation. Occasionally, however, arthrodesis offers a quick and effective way of relieving pain and correcting deformity, particularly when involvement of other joints is not severe.

In this series of 56 patients ages ranged from 5 to 75 years, averaging 38.9 years. Most of the patients were women in the ratio of 2 to 1.

Surgery of the foot, particularly multiple metatarsal head resections through a single transverse plantar incision, offered most patients an effective means of achieving a good gait without foot pain. These patients preoperatively had difficulty obtaining shoes with their severe bunion and hammer toe deformities, painful calluses restricted their activities. Resection arthroplasty, removing all five metatarsal heads, shortens the foot somewhat but it corrects the bunion and hammer toe deformities to a degree sufficient to permit the wearing of normal shoes. All of these patients had rather advanced rheumatoid disease causing pain in other joints. Consequently, they voluntarily restricted their activities not placing excessive demands on the reconstructed foot. This reduced level of activity may account for our apparently good results from

*Read before the Section on Rheumatism, 206th Annual Meeting, The Medical Society of New Jersey, Atlantic City, May 8, 1972. The original presentation also included discussion of surgery of the upper extremities.

this type of operation but we found it necessary to revise the resection arthroplasty in three patients in whom we had apparently failed to achieve a straight-line cut across the forefoot. The resultant bony prominence in the sole of the foot required additional resection to even off the metatarsal shafts. Support in a shoe fitted with outside metatarsal bars provided patients with post-operative support and we utilized this type of device post-operatively as a routine.[1, 4]

Table I
Lower Extremity

Foot	
Resection metatarsal head	9
Hind foot repair (triple arthrodesis)	1
Bunion and hammer toe correction	4
	14
Knee	
Synovectomy	12
Synovectomy with osteotomy (3-tibial and 1-supracondylar)	4
Tibial plateau arthroplasty	1
MGH* femoral condylar mold	2
Arthrodesis	2
Giant synovial cyst excision	3
	24
Hip	
Cup arthroplasty	9
Ring prosthesis	3
Charnley-Muller prosthesis	4
Synovectomy	1
Moore prosthesis	1
	18

*Massachusetts General Hospital

One patient in this series had a painful, rigid flatfoot which did not respond to a molded steel Whitman plate. During this time we saw several other patients with the same problem but they all responded to external support. Once the patient had the rigid valgus deformity corrected surgically, however, she had no foot pain and walked normally. In this instance, fusion of the involved joints removing wedges of bone to correct the deformity was the only procedure which could have altered the patient's situation for the better.[1]

In the *knee,* we performed sixteen synovectomies[7, 8] combining four of these with osteotomies to correct varus or valgus deformities. Pre-operatively we resorted to aggressive measures to correct flexion deformity down to no more than ten degrees of flexion. This necessitated more than gentle manipulation and splinting in ten patients. They required skeletal traction for at least two weeks before the tibia could be safely extended on the distal femur. We combined longitudinal traction through a proximal tibia pin with skin traction on the lower leg. Following this gentle passive manipulation corrected the last few degrees of deformity.

In the first five patients who had synovectomies we continued splinting post-operatively for at least two weeks but we have subsequently learned that early motion is critical in this group of patients to maintain flexibility. We, therefore, have splinted these patients for a few days following which the wounds have been sealed with collodion spray. (Aeroplast®). The patient begins active exercises and hydrotherapy in a Hubbart tank shortly thereafter. Since adopting this routine we have been able to maintain a range of flexibility from 10 to 90 degrees of flexion without pain in the patients who have had synovectomies of the knee.

We have had adverse experience regarding preservation of knee motion in patients who had combined synovectomy and osteotomy, since these patients required at least five weeks of post-operative immobilization. Despite considerable stiffness, however, these patients have found that the freedom from painful recurrent effusions and the correction of deformity at least partly justified the operation.

Our knee arthroplasties have yielded a mixed degree of success. The patient with the medial tibial plateau prosthesis did well for several months possibly as a result of the synovectomy which accompanies the insertion of the prosthesis. Subsequently, however, pain and deformity recurred. (Figure 1) Discomfort became so severe that she required total knee



Figure 1—AP roentgenogram showing failed tibial plateau prosthesis with recurrent varus deformity and pain.



Figure 2—AP roentgenogram showing geometric knee prosthesis salvaging the failed tibial plateau prosthesis.

replacement with a geometric prosthesis. In the short term after the second procedure, she experienced dramatic relief of pain with correction of a 30 degree varus deformity and the regaining of a 95 degree arc of motion. [2, 5]

The MGH* femoral condylar molds have apparently given an otherwise non-ambulatory patient a range of mobility which permits her to walk about her first floor on crutches. She has no knee pain, can carry both knees through a 90 degree arc of motion from a 5 degree flexion contracture to 95 degrees of further flexion. She has bilateral hip involvement but has refused hip replacements. She feels satisfied with this level of activity and wants no additional surgery.

Our experience with surgery in eighteen rheumatoid hips parallels that reported in larger series. In nine cup arthroplasties we had two which required revision. Another dislocated in the throes of an intense rheumatoid flare-up producing nearly uncontrollable knee flexion deformities. Despite skeletal traction and posterior splints, the knees went up into marked flexion which, with adduction and internal rotation, forced the reconstructed hip to dislocate posteriorly. Because of the patient's poor condition, we were unable to operate on him again and he subsequently died. The remaining six cup arthroplasties have yielded results ranging from fair to good.[9] On balance, however, cup arthroplasty has proved unpredictable and since the advent of total hip replacement it will probably find less application than heretofore.

Total hip replacement[3] has seemingly revolutionized reconstructive hip surgery. Extensive experience with it since the mid-1960's indicates that surgery can mobilize these patients much more quickly and with greater assurance of adequate pain relief than was previ-

*Massachusetts General Hospital.



Figure 3—AP roentgenogram showing degenerative changes complicating a rheumatoid hip.



Figure 4—AP roentgenogram showing correction of a rheumatoid hip with a Charnley-Muller total hip prosthesis.

ously possible. The Food and Drug Administration made methyl methacrylate generally available in October 1971. Prior to that time, strictures on the use of methyl methacrylate required most surgeons to use a total hip replacement which did not utilize the cement.

We did three Ring total hip replacements despite a theoretical objection that the femoral and acetabular components might loosen in the porotic bone of the rheumatoid patient. Again the restricted level of activity these patients usually manifest may have, in these instances, worked in their favor because all three patients have expressed satisfaction with their operation. They have nearly full ranges of motion and we have rated them as good results. Since October 1971 we have performed six Charnley-Muller hip replacements in patients with rheumatoid arthritis. Results in this small group over a short period of time are dramatic especially when compared to the previously available procedure of cup arthroplasty. To date all of the hip incisions have healed well and none of our patients have developed wound infections. (Figures 3 and 4)

Four patients who underwent hip surgery have also had surgery performed on other joints in the lower extremities. Precise quantitation of results of these multiple procedures is difficult. Two of these patients had difficulty in pursuing the goal of full ambulation. Fatigue, muscle weakness, erosion of their motivation, and persistent joint pain elsewhere compromised their end results. Two other patients, however, with total hip replacements and other joint surgery have responded well and express satisfaction with increased mobility and decrease in pain.

Summary

We have presented our experience with surgery in rheumatoid arthritis of the lower extremities in a community hospital over a seven year period. We have found that synovectomy has its greatest application in early cases of knee involvement. Replacement arthroplasty of the hip and knee, at present, has proved most useful.

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Psychiatric Drugs Effective in Preventing Post-Hospital Relapse

A research project in Maryland shows that continued psychiatric medication in the post-hospital treatment of schizophrenic patients is highly effective in preventing relapse.

Principal investigator Gerard E. Hogarty, Chief of Social Science Research at Friends Medical Science Research Center in Baltimore, is continuing the study under a grant from the National Institute of Mental Health. Hogarty and his colleague, Dr. Solomon C. Goldberg, of NIMH's Psychopharmacology Research Branch, initiated the study to find out how two modes of treatment —drug medication and sociotherapy—relate to the prevention of relapse. The team also sought to test the effect of continued drug use in improving social adjustment among the discharged patients.

The investigators found that only 31 per cent of the patients being given a major tranquilizer were rehospitalized during the first year following discharge, a rate less than half of that for patients receiving a dummy medication.

Participating in the study were 374 patients treated for schizophrenic disorders at three Maryland State Hospitals serving the Baltimore area. Following discharge, patients were grouped and assigned to one of four treatment regimens. These included drug alone (Thorazine®), drug with sociotherapy (social casework and vocational rehabilitation counseling), placebo alone, and placebo with sociotherapy.

In the January *Archives of General Psychiatry* the investigators reported that all patients, whether on drugs or placebo, who were not rehospitalized within six months, were adjusting equally well. After six months, however, placebo patients began to relapse at a rate twice that of those who received drugs. The researchers suggested that the drug should be maintained for its long-term preventive value as well as for its immediate therapeutic effect. Although psychiatric drugs are frequently prescribed for patients after discharge, if discontinued when the symptoms become less obvious, the drugs' full potential is nullified.

The project is also contributing to a fuller understanding of the after-care process as a whole. The data indicate the psychotherapies used in the after-care of mentally and emotionally disordered patients might require at least a year to show a noticeable effect. Although average lengths of hospitalization have decreased dramatically since psychotherapeutic drugs were introduced in the mid-1950's, the frequent rehospitalization of patients has become a major problem. The NIMH-supported study is the first comprehensive effort to evaluate the preventive value of drugs in the post-hospital care of patients.

Isolated infarction of the right ventricle is difficult to diagnose except at autopsy. But it has to be considered.

Right Ventricular Infarction*

Subhash Kherdekar, M.D./Boston and Michael A. Nevins, M.D./Paramus

Massive left ventricular infarction is not infrequently associated with necrosis of contiguous portions of the right ventricle. In one quantitative study of infarcted myocardium of 20 patients dying in cardiogenic shock all but three had some degree of right ventricular involvement. Four had infarcted greater than 50 per cent of the right ventricular mass.[1] Isolated infarction of the right ventricle, however, is rare. In this paper we will review the frequency, pathogenesis, and clinical features of this unusual condition.

In 1930, Sanders[2] described a patient dying of coronary thrombosis who was found at postmortem to have massive right ventricular infarction. Later sporadic reports described additional cases. Some have been associated with congenital disorders such as single coronary artery[3] or total anomalous pulmonary venous connection.[4] In a review of autopsies of 1651 patients dying of myocardial infarction, Zaus[5] found 29 cases of isolated right ventricular necrosis. Bean[6] described nine cases in a postmortem series of 481 myocardial infarctions and Feil[7] and Mallory[8] respectively found isolated right ventricular involvement in one of 34 and one of 54 cases of acute myocardial infarction. Thus, the incidence of isolated right ventricular necrosis is between one and two per cent of patients with autopsy evidence of acute myocardial infarction. In men between the ages of 18 and 39 dying of myocardial infarction[9] the incidence of right ventricular necrosis was somewhat higher: 4.6 per cent.

None of the explanations offered by different workers to account for the rarity of this condition is entirely satisfactory, and the pathogenesis of right ventricular infarction still remains a matter of speculation.

We do know that there are three systems of veins in the human heart. The Thebesian system is the smallest and occurs primarily in the right atrium and right ventricle, but is occasionally found in the left side of the heart also. Blumgart, *et al.*,[10] suggested that a nutritive function of this system might account for the relative immunity of the right ventricle to infarction. Prinzmetal,[11] however, showed that blood flowing into an ischemic area of a dog's right ventricle was arterial and not Thebesian.

The left coronary tree is affected by atherosclerotic disease more frequently than the right. In Bean's postmortem series[6] of 287 infarctions, the left coronary tree was seriously involved in 84 per cent and the right in 21 per cent of cases. Similarly, Wartman[12] found the right coronary artery either alone or in combination with other arteries to be implicated in 35 per cent of 132 infarcts while the left anterior descending artery was occluded in 70 per cent of cases.

Greater involvement of the left coronary tree might be explained by the anatomic and physiologic differences in the structure of the two ventricles and their vasculature. The deep branches of arteries of the left ventricle leave the main trunk at right angles and pass directly through the myocardium while those of the right ventricle spread out in practically the same plane as the parent trunk.[13] The more obtuse angle with which perforating branches arise in the right ventricle may result in the less acute bending of these arteries.

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The sharper angle of origin in the left ventricle may give rise to more traumatic bending during systole favoring arterial degeneration.

Prinzmetal[11] showed, both in man and, experimentally, in dogs, that after acute coronary occlusion there is a continuous actively circulating collateral blood flow in the portion of myocardium rendered ischemic by the occlusion of its main artery. He suggested that interarterial coronary anastomoses were the chief source of collateral circulation. He also established that the anastomotic blood supply to ischemic portions of the right ventricle was better than that to the ischemic left ventricle and concluded that right ventricular infarction is rare because the collateral circulation to it usually is adequate to prevent necrosis.

Systolic coronary inflow is relatively greater in the right than in the left coronary artery.[14] Since ischemic myocardium can offer only passive resistance to the intraventricular cavity pressures, the collateral flow during systole meets with more resistance when flowing from right to left than when the reverse is the case.[15] The relative thinness of the right ventricle has given rise to the idea that it derives nutrition directly from blood in its cavity.[10] There is, however, no evidence either clinical or experimental to substantiate this.

The metabolic requirements of the left ventricle are greater than those of the right ventricle, not only because of its greater mass, but also because under normal conditions it performs about three times as much work by weight as the right ventricle.[14] Consequently, damage to the right ventricle requires greater reduction in blood supply than is necessary to produce ischemic necrosis of the left ventricle.

Wade[15] noted that right ventricular infarction often occurs in hypertrophied hearts. In a study of healthy farm pigs gradual occlusion of the right coronary artery produced left ventricular infarction in all, but right ventricular infarction in none of the cases.[16] When pulmonary hypertension and right ventricular hypertrophy were induced by pulmonary artery banding, right coronary occlusion now caused right ventricular infarction in 80 per cent of cases. Thus, when the right ventricle was made comparable in mass and wall tension to the left ventricle, the incidence of infarction increased drastically. There was no consistent correlation, however, between the degree of collateralization and the size of the right ventricular infarction. This observation is in agreement with James' statement[17] that in the presence of long-standing mitral stenosis or pulmonary emphysema the thickened right ventricle infarcts with the same frequency as the normal left ventricle.

Except for its left anterior third, the right ventricle is supplied by the right coronary artery.[18] In the vast majority of isolated right ventricular infarctions, basal parts are involved and the main right coronary artery is occluded. The anterior wall is affected only rarely and then the infarct is usually focal.

Clinical Features

Our knowledge of the natural history of this condition is scanty since it is very rare and the diagnosis almost always is made at the autopsy table. The incompleteness of the available data, in retrospect, makes it difficult to make definitive remarks about the distinctive clinical features.

Circulatory failure was noted in all of Wade's seven cases[15] and in five "right-sided failure also supervened." Zaus, *et al.*,[5] in a case report of massive right ventricular infarction remarked that the early clinical manifestations are due to "low input-output failure of the left ventricle and . . . death probably intervened too soon to permit severe congestion to appear."

Several groups were unable to produce a significant rise in peripheral venous pressure in dogs by directly damaging the right ventricle.[19, 20] Thus, it is unlikely that the peripheral venous congestion and rise in venous pressure so often associated with cardiac disease in man are caused directly and predominantly by right ventricular failure. The dam-

aged right ventricle functions passively as an efficient pump by virtue of mechanical energy transmitted from the left ventricle through the continuity of circumscribing ventricular muscle bands.[20]

It appears that when the thin-walled right ventricle becomes infarcted, the lesion is particularly liable to become transmural and myocardial rupture, pericarditis, mural thrombosis, and pulmonary embolism are not infrequent complications.

Electrocardiographic Features

The electrocardiographic diagnosis of right ventricular infarction is difficult because of the small action potentials generated by the right ventricle relative to those of the left chamber. Although there are no definitive criteria for right ventricular infarction several features may be suggestive.

If right ventricular infarction is sufficiently extensive to involve the anterolateral wall of the right ventricle, the diagnosis may be suggested by ST elevation in the right precordial leads and reciprocal ST-T depressions in the left precordial leads.[15] During right ventricular hypertrophy an area that particularly increases its mass is the crista supraventricularis. James[17] suggested that this selectively hypertrophied area may be particularly susceptible to infarction. This posterobasal portion of the right ventricle is one of the last areas to be depolarized normally and when hypertrophied the electrocardiographic pattern includes deep S waves in leads I, II and III or a tall terminal R-prime wave in aVR. Loss of such terminal superior, posterior rightward oriented vectors might indicate loss of cristal mass due to infarction.

In infants the left ventricle generates a smaller fraction of the QRS potential and the dominant QRS vector is anteriorly oriented and generated by the right ventricle. Right ventricular infarction in this age group is easier to recognize electrocardiographically. In 14 cases of infarction of the anterior papillary muscle of the right ventricle in infants with total anomalous pulmonary venous drainage, seven had Q waves in V_3R and three had diminishing R waves in V_3R, V_1 and aVR.[4]

Prognosis

In one series the average survival was three weeks from the onset, with a range of seven to 54 days.[15] The tendency for right ventricular infarction to occur in hypertrophied hearts which are already compromised by severe ischemic disease and the frequency of embolic episodes make the outlook particularly grave.

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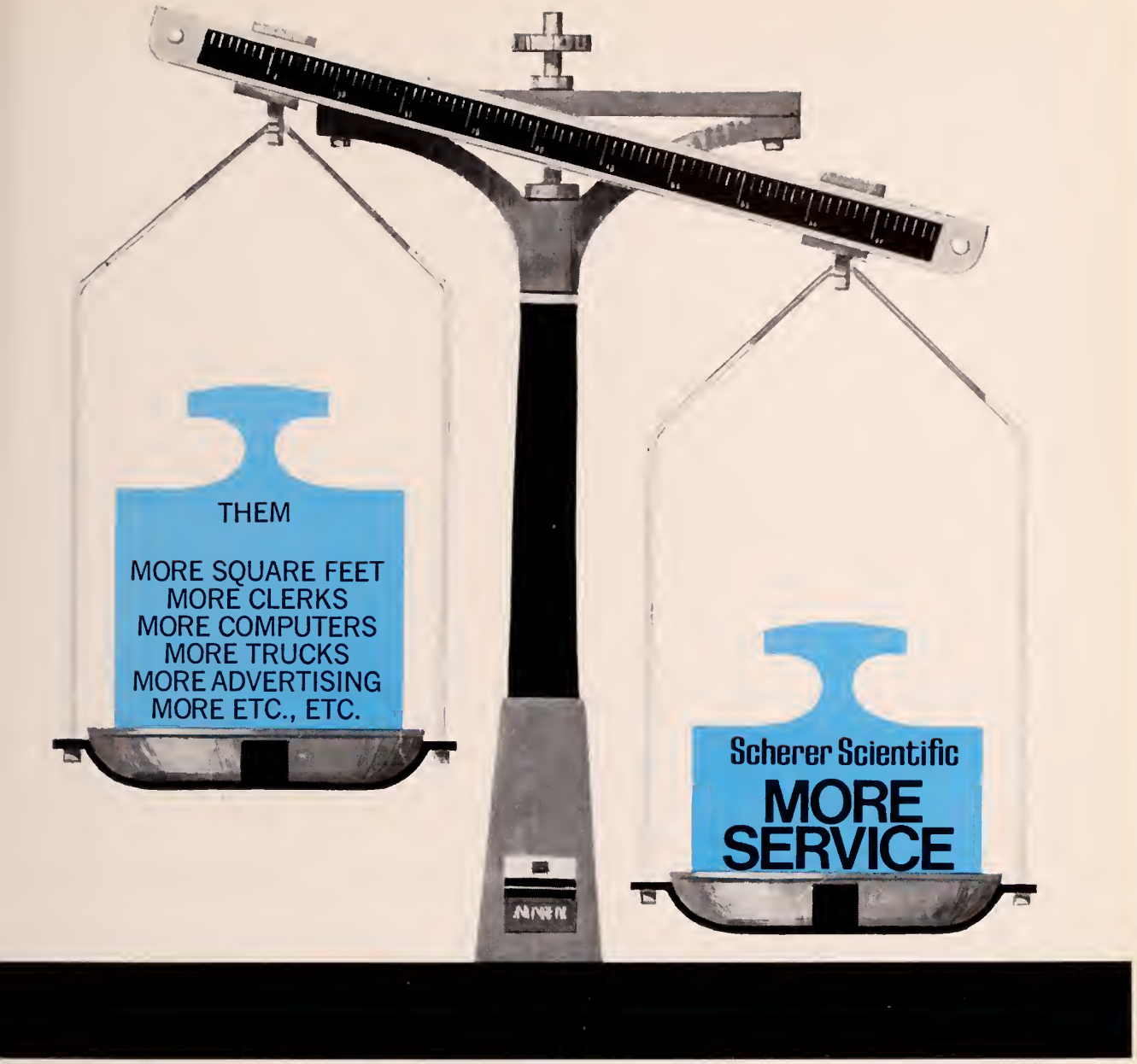
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Precautions: As with other thyroid preparations, a overdosage may cause diarrhea or cramps, nervous ness, tremors, tachycardia, vomiting and continue weight loss. These effects may begin after four or fiv days or may not become apparent for one to thre weeks. Patients receiving the drug should be observe closely for signs of thyrotoxicosis. If indications o overdosage appear, discontinue medication for 2-l days, then resume at a lower dosage level. In patient with diabetes mellitus, careful observations should b made for changes in insulin or other antidiabetic dru dosage requirements. If hypothyroidism is accom panied by adrenal insufficiency, as Addison's Disea (chronic subcortical insufficiency), Simmonds's Dis ease (panhypopituitarism) or Cushing's syndrome (hy peradrenalism), these dysfunctions must be correcte prior to and during SYNTHROID (sodium levothyroxine administration. The drug should be administered wit caution to patients with cardiovascular disease; devel opment of chest pains or other aggravations of cardio vascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardia infarction. **Side effects:** The effects of SYNTHROI (sodium levothyroxine) therapy are slow in being mani fested. Side effects, when they do occur, are secondar to increased rates of body metabolism; sweating, hear palpitations with or without pain, leg cramps, an weight loss. Diarrhea, vomiting, and nervousness hav also been observed. Myxedematous patients with hear disease have died from abrupt increases in dosage o thyroid drugs. Careful observation of the patient durin the beginning of any thyroid therapy will alert th physician to any untoward effects.

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Dosage and Administration: The activity of a 0.1 mg SYNTHROID (sodium levothyroxine) TABLET is equiva lent to approximately one grain thyroid, U.S.P. Admin ister SYNTHROID tablets as a single daily dose preferably after breakfast. In hypothyroidism withou myxedema, the usual initial adult dose is 0.1 mg. daily and may be increased by 0.1 mg. every 30 days unti proper metabolic balance is attained. Clinical evalua tion should be made monthly and PBI measurement about every 90 days. Final maintenance dosage wil usually range from 0.2-0.4 mg. daily. In adult myx edema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month in tervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) for **Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.



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Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued.

PRECAUTIONS: Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity.

CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage.

WARNINGS: If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastic breast carcinoma. If this occurs, the drug should be discontinued.

ADVERSE REACTIONS: Cholestatic Jaundice • Oligospermia and decreased ejaculatory volume. • Hypercalcemia particularly in patients with metastic breast carcinoma. This usually indicates progression of bone metastases. • Sodium and water retention. • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia.

DOSAGE AND ADMINISTRATION: Dosage must be stricly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following chart is suggested as an average daily dosage guide.

INDICATION	Average Daily Dosage Tablets
In the male:	
Eunuchoidism and eunuchism	10 to 40 mg.
Male climacteric symptoms and impotence due to androgen deficiency	10 to 40 mg.
Postpuberal cryptorchism	30 mg.

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Neonatal Intravascular Coagulation Associated With Abruptio Placentae*

Farouk L. Al-Salihi, M.D., *et al.*
Jersey City

Documented cases of disseminated intravascular coagulation (DIC) in a newborn following *abruptio placentae* were reported by Edson, *et al.*,[1] Hathaway, *et al.*[2] and Lascari and Wallace.[3] However it appears[2] that the incidence of bleeding difficulty due to DIC among newborns after abruption is higher than indicated by the reported cases. Proved neonatal DIC with defibrination and bleeding after *abruptio placentae,* with normal maternal coagulation studies, has not been described. We are here describing the clinical and histopathologic findings in a case of neonatal DIC with onset of widespread bleeding and defibrination following labor and delivery complicated by *abruptio placentae.* To our knowledge this is the first case of neonatal DIC associated with retroplacental hematoma in which the clinical symptoms of disease in the newborn occurred as late as the fifth day of life.

A 5-day-old male, presented with excessive oozing of blood from a femoral venipuncture site. The mother had experienced some vaginal bleeding 36 hours prior to a spontaneous delivery that terminated an estimated gestation of 32 weeks. The baby breathed and cried immediately. Birth weight was 1960 Grams. Three hours following delivery, the infant developed generalized cyanosis, grunting respiration, and retraction. He was placed in a controlled environment with heat, humidity, and oxygen as needed for cyanosis. After 36 hours, respiratory signs disappeared and oxygen was discontinued. The infant did well until the fifth day when jaundice, increasing lethargy, poor Moro and sucking reflexes were noted. Penicillin and kanamycin were started, after material for blood, urine, and nose and throat cultures was obtained. At this time, femoral venipuncture was followed by oozing of blood from the puncture site for 45 minutes, despite application of pressure.

Family History: The mother was a 17-year old, Gravida II, Para II—blood type O-positive. A 1-year old daughter is normal. Pregnancy was uneventful until 36 hours prior to delivery, when she experienced the sudden onset of vaginal bleeding associated with crampy abdominal pains. The infant was delivered after four hours of labor complicated by continued bleeding and passage of clots. A clot was noted over 33 per cent of the maternal surface of the placenta. Total blood loss was estimated at 250 ml. The father is alive and well. No family history of bleeding difficulty.

Physical Examination: The patient was a small 5-day-old newborn who appeared lethargic. Head circumference was 29 cm, chest circumference 27 cm, and length was 45 cm. Respiratory rate was 50 per minute. The lungs were clear to auscultation. Heart rate was 100 per minute, and no murmurs were heard. The abdomen was soft and not distended. We found no visceromegaly or palpable masses. The skin and conjunctivae were slightly icteric. Moro and sucking reflexes were weak. Blood was noted to ooze from a femoral venipuncture site.

Laboratory Data: White blood count was within normal limits. Blood type was O negative and the direct Coombs test was negative. Hematocrit on the third day of life was 58 per cent. On day five, serum bilirubin was 19.6 mg/100 ml (indirect 17.4 mgm/100 ml, direct 2.2 mgm/100 ml), the hematocrit had fallen to 30 per cent, and urinalysis revealed a trace of blood; blood platelets were 125,000/ cu. mm; plasma fibrinogen was 20 mgm/100 ml; one stage prothrombin time 60.8 seconds (control 11.8 seconds); partial thromboplastin time 150 seconds (control 35 seconds); thrombin time 25.3 seconds (control 10.4 seconds) and clotting time 7 minutes 25 seconds (capillary method). Chest X-ray was negative. Cultures from the blood, urine, nose and throat were negative.

The mother's hematocrit on the seventh postpartum day was 33 per cent. Clotting time was 3 minutes 15

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seconds (capillary method) and the bleeding time 1 minute 55 seconds (Duke method). On the tenth post-partum day, plasma fibrinogen was 480 mgm/100 ml; platelets 478,000 cu. mm; clot retraction +4; prothrombin time 11.9 seconds (control 12 seconds); partial thromboplastin time 33.7 seconds (control 34.8 seconds); and thrombin time 11.1 seconds (control 10.6 seconds).

Course: On day 5, phytonadione, 1 mgm., was given intramuscularly and blood was obtained for coagulation studies. Bleeding from the venipuncture sites could not be controlled by pressure, and ceased only after transfusion of 65 ml. of fresh whole, citrated blood. On the basis of the coagulation study results, heparin, 180 international units, was administered intravenously, and 40 ml. of fresh whole blood was transfused on the sixth postnatal day. Four hours after transfusion, the clotting time was 7 minutes 56 seconds (pre-heparin clotting time 7 minutes 25 seconds) and bleeding from the nose and oral cavity was noted. Multiple ecchymoses developed over the trunk and extremities, and oozing recurred from the venipuncture sites. Heparin, 180 units intravenously, and transfusion of 40 ml of fresh whole blood were repeated on the 7th day. The clotting time increased to 60 minutes, and the ecchymotic areas increased in size and number. The infant became apneic and expired on the 8th postnatal day.

Autopsy: The lungs appeared deep red in color and hypocrepitant. On section they exuded large quantities of bloody fluid. The thymus was ecchymotic. An extensive area of hemorrhage involved the base of the great vessels and the right atrio-ventricular sulcus. Several dark red areas covered the surface of the left lobe of the liver. The adrenal glands were large and deep red in color, and on section contained extensive areas of hemorrhage. The renal capsules stripped easily, leaving smooth lobulated surfaces. On section, the medullae were dark red in color. Renal arteries and veins were free of thrombi. The stomach and large intestine contained clotted blood. The brain was grossly normal, with no thrombi or hemorrhage seen on section. Microscopic examination of lung tissue showed the alveoli and bronchioli to be filled with red blood cells and many macrophages, several of which contained hemosiderin. Many arterioles and capillaries were occluded by thrombi in varying stages of organization. The central zones of the liver showed extensive areas of hemorrhage and necrosis. Capillaries of the subcapsular zone contained hyaline thrombi. In the kidneys, the medullary and juxtamedullary zones showed extensive hemorrhagic and necrotic areas, with the cortices virtually intact. The perirenal and peripelvic fat contained extravasated red blood cells. Both adrenals were extensively infarcted. The cortical areas of the thymus and adjacent connective tissue septa contained multiple foci of hemorrhage, with many capillaries occluded by hyaline thrombi. The epicardial fat contained several hemorrhagic foci.

Maternal defibrination following obstetrical complications has been recognized since 1936,[4] and it is estimated that 10 per cent of mothers who experience *abruptio placentae* develop severe bleeding, with laboratory evidence of defibrination.[5] But, as Leissring and Vorlicky[6] recently pointed out, there is a paucity of information about the newborns delivered following these complicated pregnancies. Cruickshank[7] in 1930, noted histologic evidence of widespread thrombosis in 4 per cent of neonatal deaths. In 1951, Schneider[8] suggested that a pathologic syndrome occurs in the fetus and newborn similar to that seen in fatal maternal cases of defibrination after *abruptio placentae*. Potter[9] called attention to pulmonary ecchymoses in newborns who did not survive antepartum maternal bleeding and retroplacental hematoma.

The first report of defibrination and bleeding in both mother and newborn after abruption was by Valentine[10] in 1958. Retroplacental hemorrhage was associated with fatal thromboembolism in a newborn reported by Boyd[11] in 1965. Hibbard and Jeffcoate[12] in their review of 506 instances of *abruptio placentae* found that 2 per cent of the newborns born alive and with birth weights above 2,000 Grams died with some evidence of bleeding disorder. In 1968 Edson, *et al.*,[1] described severe defibrination and bleeding in a neonate after *abruptio placentae*. In this case, while the mother did not bleed, her plasma fibrinogen levels were significantly low.

The infant described in this report experienced slight transient respiratory distress, and it was not until the 5th day of life that he was noted to be "not doing well," and excessive oozing from a venipuncture occurred. Boyd[11] has noted that newborns are able to withstand widespread thromboembolism for four days, and perhaps longer, before succumbing. Although assays of factors V and VIII were not done, the bleeding tendency, extremely low fibrinogen level, the prolonged prothrombin, partial thromboplastin, thrombin and clotting times in an infant delivered after *abruptio placentae,* support the diagnosis of DIC, which was confirmed by the autopsy findings of widespread necrosis, microthrombi, and hemorrhage. Thrombi, involving capillaries and arterioles (micro-vasculature) or many organs, were in various stages of organization, perhaps a reflection of the infant's survival to eight days of life. The kidneys showed no cortical necrosis, often seen with DIC.[13] The renal medullae showed extensive infarction and necrosis, and cellular necrosis was demon-

strated in the liver. Hemorrhage was seen in both adrenals, considered suggestive of DIC by Edison.[1] Extensive hemorrhage was present in the thymus gland, a finding not previously reported in a case of neonatal DIC.

Maternal coagulation studies were not done during labor or the immediate postpartum period, but blood drawn for typing and crossmatching during labor clotted firmly and uniformly, suggesting the presence of plasma fibrinogen in adequate amount.

DIC has been described in newborns with disseminated herpes simplex, rubella, and cytomegalo virus infection.[2] Although viral studies were not performed in this case, lack of multinucleated giant cells in liver parenchyma, intranuclear basophilic inclusions in the alveolar lining cells and intranuclear inclusions in bile duct cell, as well as the absence of any suggestive radiographic findings, make a viral etiology in this case unlikely. The late onset of clinical disease in this case supports the observation of Boyd,[11] who noted that newborns are able to withstand widespread thromboembolism for four days or longer before succumbing.

Neonatal DIC should be anticipated in the newborn delivered after *abruptio placentate* of any degree. It is recommended that infants born following retroplacental bleeding be tested early and repeatedly for evidence of consumption of coagulation factors. Observation of clot formation, platelet count, fibrinogen levels, thrombin, prothrombin and plasma thromboplastin times are rapidly available studies. Ata[14] states that the combination of thrombocytopenia and hypofibrinogenemia strongly suggest the presence of consumption coagulopathy. In a newborn delivered after *abruptio placentae,* a poor clot, low fibrinogen level and thrombocytopenia are sufficient for this diagnosis and the initiation of therapy. Assay of factor V and VIII levels and the presence of fibrin split products offer substantiation, but are not necessary for the diagnosis of neonatal DIC with defibrination.

Summary

The clinical and pathological findings in a neonate with a late onset of disseminated intravascular coagulation and consumption coagulopathy following *abruptio placentae* are described. It is suggested that disseminated intravascular coagulation might occur more commonly than suspected in newborns born after retroplacental hematoma, and all infants delivered after *abruptio placentae* should be considered high risk for DIC and followed closely for evidence of defibrination during the first days of life.

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Postoperative Pulmonary Embolism

A Critical Analysis

Victor D'Ambrosio, M.D./Murray Hill

Its high mortality rate makes pulmonary embolism a subject of primary concern to all physicians. The recognition of this grave post-surgical complication came about only in 1866, when Spencer Wells reported the first post-operative embolism.

By 1889, Lotheissen was able to report only twenty cases of postoperative death due to pulmonary embolism. This datum has a multi-form and historical significance, in that it points out the way our knowledge has evolved about this disease.

To acquire knowledge of a specific form of disease, man has to go through three periods—(1) In this first period the physician identifies few cases or forms of disease and records of same are made; (2) In the second period, more cases are collected, carefully studied, carefully followed-up, and their symptoms identified by repeated observation; (3) In the third period, our diagnostic tools and our clinical experience are increased and improved. Finally comes the time when we can unveil the atypical cases, their characteristics and their frequency and etiology.

One of the most depressing features in studying pulmonary embolism over the past 120 years has been the evidence of the failure to provide the physician with an effective method for reducing the incidence of this serious postoperative complication. Perhaps we merely are not observing the simple things. We seem to engage in extensive laboratory research trying to discover a key factor in the chemistry of the blood, or trying to introduce a new surgical method capable of preventing pulmonary embolism. I suggest that possibly we are missing the main point when we fail to consider the whole patient as the single most important factor in the cause of pulmonary embolism.

Pulmonary embolism is not a stranger to the patient. It is not an *ex-novo* development.

To know that if the patient does not ambulate early and forcefully in the immediate postoperative period he will develop thrombophlebitis is to know what would cause thromboembolism in this patient. To know that this patient has had thrombophlebitis before is to know the cause of pulmonary embolism if this particular patient undergoes a cholecystectomy and thereafter develops this complication.

The causes of thromboembolism are multiple:

a. The first order of causative mechanisms is the formation of intravascular blood clots, which may develop in:

(1) Prolonged bed rest or external pressure on the lower extremities, causing venous stasis.

(2) Local injuries of the endothelium by ligature, operative manipulations, chemicals used as therapeutic agents, bacterial contamination, or the introduction of air in a blood vessel.

3. An imbalance between the factors promoting flow and those favoring clots.

4. Orthostatic venous insufficiency of the lower ex-

*From the Surgical Service at Overlook Hospital, Summit.

tremities creating three circumstances: (a) parietal dilitation, (b) valvular incompetence, (c) increased venous pressure.

b. Second order of causative mechanisms includes:

(1) Arterial clots—these crescent-shaped clots are relatively a-cellular with a slight tendency toward retrograde progression.

(2) Venous clots have a tendency toward retrograde progression, and to entrap cellular elements, particularly the platelets.

Emboli may be made of: (1) thrombi; (2) tumor cells; (3) fat (trauma cases); (4) air—artificial pneumothorax, neck surgery; (5) masses of bacteria (phlebitis, abscesses, endocarditis; (6) parasites; and (7) foreign bodies.

Anatomical defects favoring the development of pulmonary embolism include:

Intracardiac—(1) A.S.D. (patent faraman ovale) and (2) V.S.D. (congenital and traumatic).

Vascular—(1) Arterial spasm and (2) Extra pulmonary vascular bands and webs (18). This is more common in veins.

A new concept of the etiology of acute and recurrent thromboembolism has been recently added. This speaks eloquently in favor of the acquired factor developing as the result of the hospitalization period, or following surgical procedures.

There have been described atypical and L forms of bacteria cultured from the blood of the patients suffering from three clinical types of thromboembolism.

Type I—In Type I, there were 18 patients who had an acute thrombophlebitis and one attack of pulmonary embolism.

Type II—In Type II, 28 patients had multiple episodes of phlebitis with pulmonary embolism.

Type III—In Type III, 4 patients had thromboembolic disease of the systemic venous and aterial circulation. This study suggests that bacterial L forms, may play an important etiologic role in thrombophlebitis and pulmonary embolism. The source of these bacteria seems to be endogenous.

This series of cases demonstrated that the hemogram was of no help in the period immediately postembolism. However, there has been evidence of leukocytosis in cases of pulmonary infarcts. This finding is in harmony with studies done by others. Plain chest films have either diagnosed or strongly suggested the pulmonary embolism or infarct case. The electrocardiographic findings have been of little help in developing immediate diagnosis.

Two procedures are retained to make the most important contribution to an immediate diagnosis. These are right heart catheterization and angiocardiography. Radioisotope scanning results have been found to compare favorably with those of angiography. More recently ultrasound[16] has revealed itself as a highly accurate method of diagnosis in cases of pulmonary embolism. Our general findings are summarized as follows:

1965 Findings

Number of patients: 19—10 female, 9 male
Age of patients: 3 cases over 20, but under 50; 16 cases 50 or older; the eldest was age 89
Treatment: Surgery—two cases (vena cava ligation)
Anticoagulant therapy: Treatment adequate—5 cases; treatment inadequate—7 cases
Not anticoagulated: 5 cases
Pulmonary emboli with associated conditions: 17 cases—among the most common associated conditions are: ASHD, thrombosis of the femoral system, pelvic surgery, diabetes, trauma, hypertension, obesity, neoplastic diseases (ASHD—7 cases; phlebitis—6 cases). Associated problems coexistent or pre-existent to surgery are definitely a factor in the development of pulmonary emboli. So is age (all but three patients were 50 or over). Gender is not a factor.
Patients alive: 11 after anticoagulants
Deaths: 8; 6 had not been anticoagulated

Anticoagulant therapy is still the basic method of treating and preventing pulmonary emboli.

1966 Findings

Number of patients: 12—6 female, 6 male
Age of patients: 5 cases over 20 but under 50; 7 cases over 50
Treatment: Surgery—plication of the inferior vena cava. One patient was alive after surgery
Anticoagulant therapy: Treatment adequate—3 cases; treatment inadequate—4 cases
Not anticoagulated: 5 cases
Patients alive: 9; 7 were anticoagulated
Deaths: 3; 2 were not anticoagulated

1967 Findings

Number of patients: 13—7 female, 6 male
Age of patients: 3 over 20 but under 50; 10 cases 50 or older
Treatment: No surgery performed to prevent or remove pulmonary emboli
Anticoagulant therapy: Treatment adequate—5 cases; treatment inadequate—3 cases
Not anticoagulated: 5 cases
Timing: Thromboembolism was more immediate in abdominal operations and less so in orthopedic and trauma cases
Patients alive: 10; 8 were anticoagulated
Deaths: 3; 2 were not anticoagulated

Pulmonary Embolism—Mortality Rate

Year	*Total Cases*	*Deaths*	*Percent*
1965	19	8	42
1966	12	3	25
1967	13	3	21

In all these cases with a fatal outcome, treatment for embolism was delayed, perhaps because the embolism was not suspected. This suggests that even though the diagnosis is not proved the treatment should be started. Deaths from pulmonary embolism in 15,759 surgical procedures during these three years had a rate of less than one per cent.

Major Surgical Operations and Incidence of Pulmonary Embolism at Overlook Hospital

Year	*Operations*	*Embolism*	*Incidence*
1965	5,620	19	0.0033%
1966	4,943	12	0.0024%
1967	5,196	13	0.0025%

(Not included in this summary are obstetrical cases, gynecologic cases, newborns, and circumcisions. Also excluded were endoscopies, radiography, or radium therapy.)

Causes of Pulmonary Embolism

From this review of the previous cases, the logical inferences are that causes of pulmonary embolism in the postoperative period are multiple and not single.

It is wasteful and dangerous to think of single etiologic factors in this type of problem, if we are to decrease the incidence and mortality of the postoperative pulmonary embolism. As a matter of personal feeling, this type of approach should be extended to many other problems in medicine and surgery, where there is no single factor as etiology of a disease. This would be my first step in trying to curtail postoperative pulmonary embolism. Let me divide pulmonary embolism into two major groups or categories.

(1) This is composed of patients who have undergone major surgical operations, but have no history of medical conditions which could influence the development of thromboembolism.

(2) This is represented by a patient who has undergone major surgical procedures, but who has one or more medical conditions which may play a role in the development of thromboembolism.

Thromboembolism is somewhat like today's problem of air pollution. Pulmonary embolism is a disease of the environment. The disease of the hospitalized patient, who, once admitted to the hospital, is committed to a different life and this adds to his body a new traumatic insult, whether this insult be surgery, body chemistry change, an infectious process, or a new form of walking or sleeping. Only when we analyze these facts about the patient who is operated upon, can we begin to identify some of the causes of pulmonary embolism and then we can start to treat and prevent this serious problem. There is more than one cause of pulmonary embolism in a patient who has undergone a major surgical procedure. There must be more than one way to prevent this complication.

The umbrella, the Teflon® clip, and even the ligation of the inferior cava is not the answer to the problem. When we prepare to carry out one of these procedures, we have already accepted defeat and admitted that the catastrophe is irreparable.

Deep vein thrombophlebitis and pulmonary embolism can, to a great extent, be controlled by anticoagulant therapy, despite the maxim that "the next embolus will be the last one." Patients on anti-coagulant drugs seldom, if ever, develop a fatal embolus. Vena cava ligation should be reserved to patients with septic phlebitis and cor pulmonale due to repeated pulmonary emboli.

Virchow's definition of thrombosis and pulmonary embolism was that the thrombi are the parts from which larger or smaller particles are torn away by the blood as it streams by. How can we support and rely on methods of compartmentations of the inferior vena cava for prevention of fatal pulmonary emboli?

From the review of the series at Overlook Hospital, it became apparent that we too often fail to make early diagnosis or suspect the pulmonary embolism in a great number of cases. Reluctance still exists in the minds of a good number of physicians to risk early and prophylactic anticoagulant therapy.

Let me stress the following point. It is advantageous to secure the following information about the patient:

(1) Evaluation of condition of the peripheral venous system. Decide if there is a need for anticoagulants. Use Ace bandages and elevate the foot of the bed at least 15°. Encourage fast walking.

(2) Knowledge of the status of coagulability of the patient's blood.

(3) Surgical intervention of some type (compartmentation or ligation) should be reserved for septic emboli, or repeated emboli, despite the use of anticoagulants or in the case of contraindication to anticoagulant therapy.

(4) Anticoagulation to be used without hesitation and it should be adequate and prolonged (3 to 6 months).

(5) Consider elective vein ligation and/or thrombectomy in selected cases.

(6) Prophylactic measures start right at the operating table, such as routinely elevating the patient's legs about 15°, in order to facilitate emptying the venous systems.

(7) Insist that the patient rest on his side rather than having him lie flat on his back during the immediate postoperative period.

(8) To avoid bending of the knee, avoid standing by the bedside. Instead see to it that the patient does take rather long and good walks. The calf muscle pumping is effective only when this is followed.

(9) Where thromboembolism is suspected, but cannot be diagnosed with certainty, it is safer to start at once with medical treatment. Delay can be risky. Heparin is required in both proved and suspected cases.

(10) Patients with ASHD and phlebitis primarily should be looked on with suspicion and the precautions or measures outlined above should be enacted.

If the balance between hemorrhage and thrombosis in human beings suggests that the problem of thrombosis and embolus may never be solved, the knowledge of this new approach to the causes of thromboembolism should reduce the fearsome morbidity and mortality rate of pulmonary embolism.

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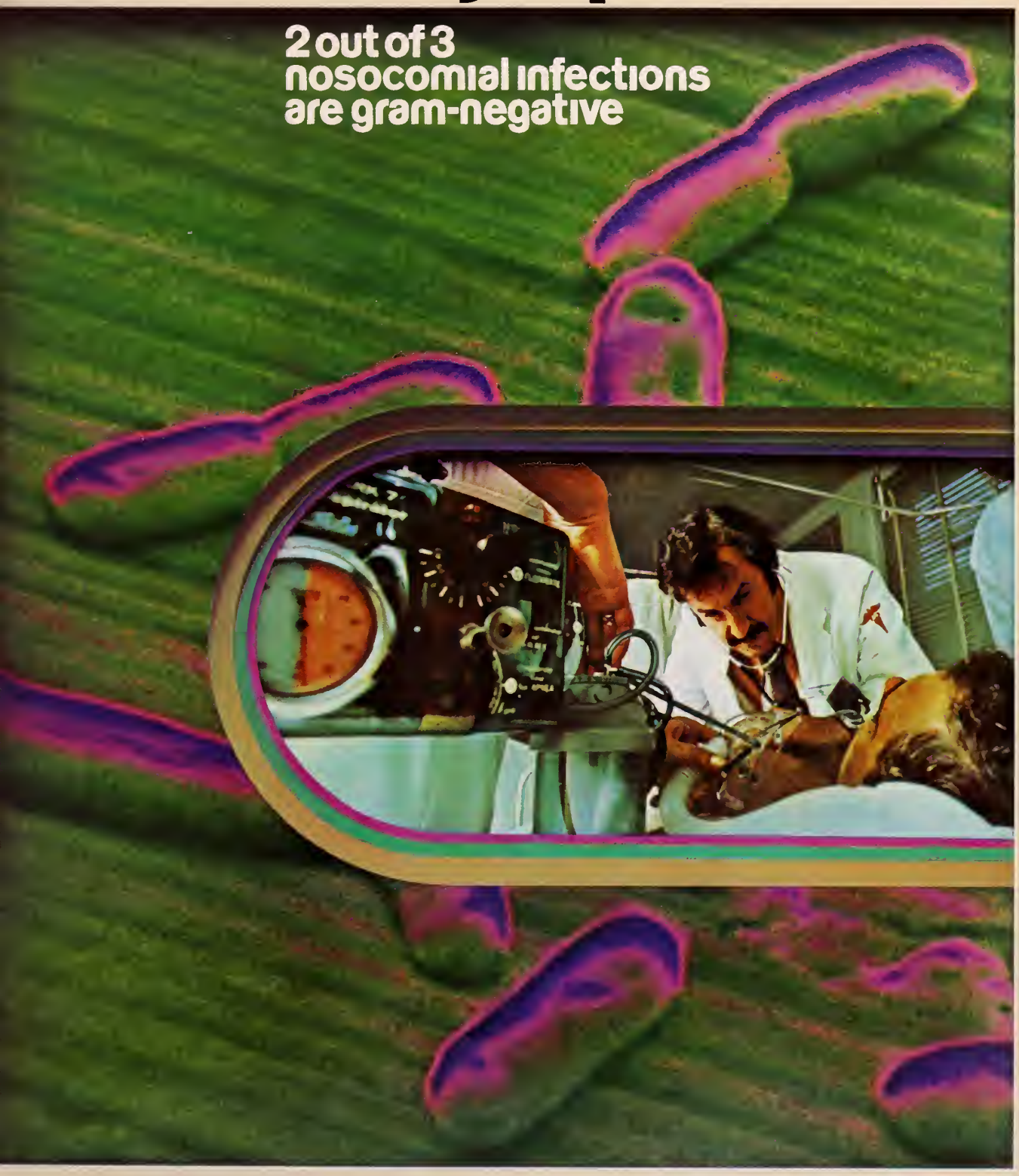
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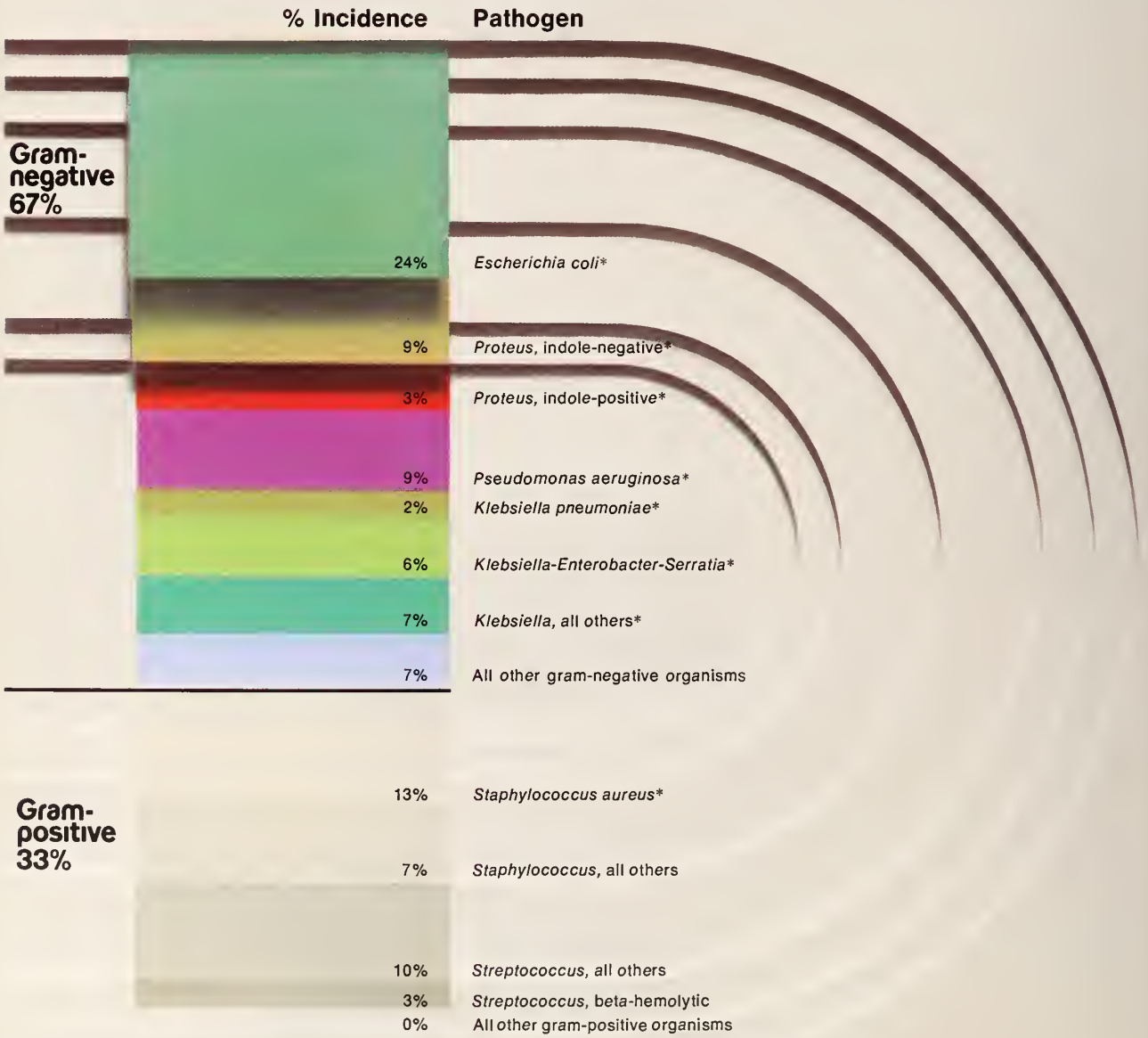
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Serum concentrations should be monitored when feasible and prolonged concentrations above 12 mcg./ml. should be avoided.

Concurrent use of other neurotoxic and/or nephrotoxic drugs, particularly streptomycin, neomycin, kanamycin, cephaloridine, viomycin, polymyxin B, and polymyxin E (colistin), should be avoided.

The concurrent use of gentamicin with potent diuretics should be avoided, since certain diuretics by themselves may cause ototoxicity. In addition, when administered intravenously, diuretics may cause a rise in gentamicin serum level and potentiate neurotoxicity.

USAGE IN PREGNANCY Safety for use in pregnancy has not been established.

See Clinical Considerations section which follows...

Schering

On all in-patient services...
in hospital-acquired gram-negative infections*

Garamycin®
gentamicin sulfate injectable
I.M./I.V.
40 mg. per cc.
Each cc. contains gentamicin sulfate equivalent to 40 mg. gentamicin

Also available:
GARAMYCIN® Pediatric Injectable, 10 mg. per cc.

GARAMYCIN® Injectable, brand of gentamicin sulfate U.S.P., injection, 40 mg./cc.
Each cc. contains gentamicin sulfate equivalent to 40 mg. gentamicin
For Parenteral Administration

WARNING
Patients treated with GARAMYCIN Injectable should be under close clinical observation because of the potential toxicity associated with the use of this drug.

Ototoxicity, both vestibular and auditory, can occur in patients, primarily those with pre-existing renal damage, treated with GARAMYCIN Injectable, usually for longer periods or with higher doses than recommended.

GARAMYCIN Injectable is potentially nephrotoxic, and this should be kept in mind when it is used in patients with pre-existing renal impairment.

Monitoring of renal and eighth nerve function is recommended during therapy of patients with known impairment of renal function. This testing is also recommended in patients with normal renal function at onset of therapy who develop evidence of nitrogen retention (increasing BUN, NPN, creatinine or oliguria). Evidence of ototoxicity requires dosage adjustments or discontinuance of the drug.

In event of overdose or toxic reactions, peritoneal dialysis or hemodialysis will aid in removal of gentamicin from the blood.

Serum concentrations should be monitored when feasible and prolonged concentrations above 12 mcg./ml. should be avoided.

Concurrent use of other neurotoxic and/or nephrotoxic drugs, particularly streptomycin, neomycin, kanamycin, cephaloridine, viomycin, polymyxin B, and polymyxin E (colistin), should be avoided.

The concurrent use of gentamicin with potent diuretics should be avoided, since certain diuretics by themselves may cause ototoxicity. In addition, when administered intravenously, diuretics may cause a rise in gentamicin serum level and potentiate neurotoxicity.

USAGE IN PREGNANCY Safety for use in pregnancy has not been established.

INDICATIONS GARAMYCIN Injectable is indicated, with due regard for relative toxicity of antibiotics, in the treatment of serious infections caused by susceptible strains of the following microorganisms:

Pseudomonas aeruginosa, Proteus species (indole-positive and indole-negative), **Escherichia coli** and **Klebsiella-Enterobacter-Serratia** species.

Clinical studies have shown GARAMYCIN Injectable to be effective in septicemia and serious infections of the central nervous system (meningitis), urinary tract, respiratory tract, gastrointestinal tract, skin and soft tissue (including burns).

Bacteriologic tests to determine the causative organisms and their susceptibility to gentamicin should be performed.

*Due to susceptible organisms

Bacterial resistance to gentamicin develops slowly in stepwise fashion; there have been no one-step mutations to high resistance.

In suspected or documented gram-negative sepsis, GARAMYCIN may be considered as initial therapy. The decision to continue therapy with this drug should be based on the results of susceptibility tests, the severity of the infection, and the important additional concepts contained in the Warning Box. In the neonate with suspected sepsis or staphylococcal pneumonia, a penicillin type drug is usually indicated as concomitant antimicrobial therapy.

GARAMYCIN Injectable has been shown to be effective in serious staphylococcal infections. It may be considered in those infections when penicillins or other less potentially toxic drugs are contraindicated and bacterial susceptibility testing and clinical judgment indicate its use.

CONTRAINDICATIONS A history of hypersensitivity to gentamicin is a contraindication to its use.

WARNINGS See Warning Box.

PRECAUTIONS Neuromuscular blockade and respiratory paralysis have been reported in the cat receiving high doses (40 mg./kg.) of gentamicin. The possibility of these phenomena occurring in man should be considered if gentamicin is administered to patients receiving neuromuscular blocking agents such as succinylcholine and tubocurarine.

Treatment with gentamicin may result in overgrowth of nonsusceptible organisms. If this occurs, appropriate therapy is indicated.

ADVERSE REACTIONS

Nephrotoxicity: Adverse renal effects, as demonstrated by rising BUN, NPN, serum creatinine and oliguria, have been reported. They occur more frequently in patients with a history of renal impairment treated with larger than recommended dosage.

Neurotoxicity: Adverse effects on both vestibular and auditory branches of the eighth nerve have been reported in patients on high dosage and/or prolonged therapy. Symptoms include dizziness, vertigo, tinnitus, roaring in the ears and hearing loss.

Numbness, skin tingling, muscle twitching, and convulsions have also been reported.

Note: The risk of toxic reactions is low in patients with normal renal function who do not receive GARAMYCIN Injectable at higher doses or for longer periods of time than recommended.

Other reported adverse reactions, possibly related to gentamicin, include increased serum transaminase (SGOT, SGPT), increased serum bilirubin, transient hepatomegaly, decreased serum calcium; splenomegaly, anemia, increased and decreased reticulocyte counts, granulocytopenia, thrombocytopenia, purpura; fever, rash, itching, urticaria, generalized burning, joint pain, laryngeal edema; nausea, vomiting, headache, increased salivation, lethargy and decreased appetite, weight loss, pulmonary fibrosis, hypotension and hypertension.

DOSAGE AND ADMINISTRATION GARAMYCIN Injectable may be given intramuscularly or intravenously.

For Intramuscular Administration:

PATIENTS WITH NORMAL RENAL FUNCTION*

Adults: The recommended dosage for GARAMYCIN Injectable for patients with serious infections and normal renal function is 3 mg./kg./day, administered in three equal doses every 8 hours.

For patients weighing over 60 kg. (132 lb.), the usual dosage is 80 mg. (2 cc.) three times daily. For patients weighing 60 kg. (132 lb.) or less, the usual dose is 60 mg. (1.5 cc.) three times daily.

In patients with life-threatening infections, dosages up to 5 mg./kg./day may be administered in three or four equal doses. This dosage should be reduced to 3 mg./kg./day as soon as clinically indicated.

*In children and infants, the newborn, and patients with impaired renal function, dosage must be adjusted in accordance with instructions set forth in the Package Insert.

For Intravenous Administration:

The intravenous administration of GARAMYCIN Injectable is recommended in those circumstances when the intramuscular route is not feasible (e.g., patients in shock, with hematologic disorders, with severe burns, or with reduced muscle mass).

For intravenous administration, in adults, a single dose of GARAMYCIN Injectable may be diluted in 100 or 200 cc. of sterile normal saline or in a sterile solution of dextrose 5% in water; in infants and children, the volume of diluent should be less. The concentration of gentamicin in solution, in both instances should normally not exceed 1 mg./cc. (0.1%). The solution is infused over a period of 1 to 2 hours.

The recommended dose for intravenous administration is identical to that recommended for intramuscular use.

GARAMYCIN Injectable should not be physically pre-mixed with other drugs, but should be administered separately in accordance with the recommended route of administration and dosage schedule.

HOW SUPPLIED GARAMYCIN Injectable, 40 mg. per cc., 2 cc. multiple-dose vials for parenteral administration.

Also available, GARAMYCIN Pediatric Injectable, 10 mg. per cc., 2 cc. multiple-dose vials for parenteral administration.

APRIL, 1972
AHFS Category 8:12.28

For more complete prescribing details, consult Package Insert or Physicians' Desk Reference. Schering literature is also available from your Schering Representative or Professional Services Department, Schering Corporation, Kenilworth, New Jersey 07033.

SLR 301

This patient was ingesting 51 capsules a day of 65 milligrams Darvon®, but was withdrawn in four days.

Addiction to a Massive Dosage of Darvon®†

A Case Report

Morton Fier, M.D./Hackensack*

Darvon®† is a synthetic analgesic in the potency range of codeine. In daily medical practice, Darvon® is generally prescribed liberally for a variety of physical discomforts and pain without great concern for its addictive potential. A number of reports[1 to 6] of cases of Darvon® addiction have already appeared in the literature, but these have been very few, seen in the light of its rather widespread clinical use.

The following case is of interest both from the point of view of the massive dose of Darvon® involved, and the ingenious technic used to obtain so large a supply of the drug.

A 27-year old, single male was admitted voluntarily to the psychiatric service of Hackensack Hospital for withdrawal from addiction to historically high doses of Darvon®. At the time of admission, he was taking 17 capsules of Darvon®, 65 milligrams, three times daily, for a grand total of 51 capsules, or 3.3 Grams per day. He is the only child of a middle-class suburban family. His father, a shopkeeper, worked long hours, and his mother taught school to augment the family income. The child was essentially cared for by a grandmother, and an aunt who tended to overprotect and indulge him. The youngster was always able to get what he wanted from his mother, and the other two women. Indeed, he saw all three women as 'mothers," and said "I got used to having a great deal of mother love, and in contrast hardly saw my father." He further indicated the degree to which the "mothers" had infantilized him in saying, "They never let me grow up. They never allowed me any responsibility. I have to learn to be responsible. I can't keep running away."

The patient suffered with bronchial asthma from age 5 and was eventually excluded from military service on that account. The last attack occurred about 5 years prior to the present hospital admission. As a school boy, he recalls his mother scattering Tedral® tablets around the house, and in all the pockets of the clothing he wore to school. Should the need arise, instantaneous medication and relief would be available. The desire to abort even momentary discomfort played an important role in the development of an "addictive personality."

He was an indifferent student, who often rebelled against what he felt to be the dogmatic authoritarian manner of his teachers. As his difficulties increased, he requested transfer to a public school, where he did manage to do better. Following graduation from high school, he went to work in his father's shop.

During a seven-year period of his life, ages 13 to 20, his father was a serious alcoholic. While drunk, his father was often abusive. It generally fell to the boy to put his father to bed. When our patient was 20, his father joined "Alcoholics Anonymous" and has been "dry" ever since.

In 1964, while driving under the influence of alcohol, the patient was in an automobile accident. His left hip was injured with sciatic nerve involvement and foot drop. During his hospitalization, the patient required daily frequent doses of meperidine hydrochloride,** or pentazocine hydrochloride.‡ At the time of discharge, he was given a prescription for Percodan®ᶻ with instructions to take 8 tablets a day. He took Percodan® for the better part of the next three years and built up a dosage of 48 tablets a day. At that level, he was almost always somnolent, anorectic, and dazed. He worked rarely and deteriorated physically. He decided to "kick the habit," and did so without any medical help. Shortly thereafter, he started using cough syrup to ease the pain in his leg. He never got much of a "high" from the cough syrup, and soon discovered Darvon.®

During one of the visits to his physician, he was given a prescription for 50 capsules of Darvon,® 65 milligrams. He immediately began taking four capsules three times a day. Approximately twenty to thirty minutes after ingesting the Darvon,® he felt a "high" which he came to anticipate eagerly. He discovered that it was necessary to increase the dosage after about six weeks to retain the "high." The increase was al-

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**Demerol®

ᶻOxycodone hydrochloride, oxycodone terephthalate, homatropine terephthalate, and APC.

†Propoxyphene hydrochloride.

‡Talwin®

ways one capsule three times a day. In a two-year period, he built up to the pace of 17 capsules three times a day. He is quick to point out that he took "plain" Darvon,® and not the Darvon Compound,® lest he suffer salicylate intoxication.

Within an hour after ingesting the Darvon,® the patient felt ravenously hungry, and ate large quantities of food. A weight gain of 75 pounds over a two-year period was noted. The medication decreased sexual desire, and caused retarded ejaculation and erectile impotence. Masturbatory activity was almost totally absent. Constipation became severe, and weekly enemas were required to effect evacuation. On occasion he experienced difficulties voiding.

Withdrawal from the Darvon® was begun on a diminishing dosage schedule from 5 capsules three times a day. The patient experienced no discomfort, and after four days asked to be completely withdrawn. The drug was abruptly discontinued and no other medication offered in its place. He suffered no abstinence symptoms and no untoward sequelae.

At this point, his way of obtaining such large quantities of Darvon® is worth mentioning. A physician had given him a prescription for 50 capsules of Darvon.® By consulting two or three other physicians, he obtained similar prescriptions. He became friendly with the pharmacist whose store adjoined that of his father's shop. The two young men would often chat, share coffee breaks, and eventually became friends.

While having a prescription for Darvon® filled one day, he casually asked, "How much would 100 cost me?" The pharmacist indicated that the price for 100 capsules would be better than for the prescribed 50. He gratefully told his friend to fill the prescription for 100 capsules. He had his three remaining prescriptions filled at different pharmacies, and was generally able to induce the pharmacists to sell him 100 capsules instead of the prescribed 50. He would then go to a pharmacist at some distance from the ones that had already filled the prescriptions. He would tell the pharmacist that he was away from home, needed Darvon® for pain, and that his home pharmacy held a bona fide prescription for the drug. The obliging pharmacist would then call the drug store, that he had identified for him and the verification would follow. Indeed, the original pharmacist indicated that he had a valid prescription for 100 capsules of Darvon.® The new pharmacist then sold him another 100 capsules of Darvon.® When he reappeared at this new pharmacy two months later, his prescription would be refilled from the label on the bottle. This would be repeated at carefully spaced intervals to avoid suspicion. With three or four "base" prescriptions, and about 25 to 30 "cooperating" drug stores, he was able to obtain this supply of approximately 1500 capsules monthly. The cost of the habit ranged from $150 to $200 per month. Since he returned to each drug store only once every 50 to 60 days, he did not arouse suspicion.

At the time of his admission to our unit, alarmed by the quantity of the drug our patient had been ingesting, and concerned about potential withdrawal symptons, I called the Medical Research Division of the Eli Lilly Company. They expressed disbelief when told of the massive doses involved, but graciously offered to do blood level determinations for us. Refrigerated specimens of blood were sent to Indianapolis for analysis. Several weeks later, we were informed that the submitted blood sample contained 7.1 mcg/ml of propoxyphene hydrochloride. This figure was almost double that for propoxyphene concentration usually found in tissue specimens at autopsy.

On admission, physical examination revealed an obese male weighing 265 pounds. Pulse was 76 and regular. Blood pressure was recorded at 120/80. The left leg was noted to be slightly atrophic with residual foot drop. Left sciatic weakness and stasis dermatitis over both lower extremities were also noted. The remainder of the physical examination was entirely within normal limits. Electrocardiogram showed normal sinus rhythm, with non-specific S-T wave changes. Laboratory reports were as follows:

FBS 92 mg.%, creatinine 1.1 mg.% BUN 15 mg.%, total protein 6.3 mg.%, amylase 32 units, bilirubin direct 0.2 mg.%, indirect 0.6 mg.%, CPK 3, inorganic phosphorous 3.3 mg.%, alk phosphatase 4.8 B.U., LDH 240, chloride 99 mEq./L., sodium 137 mEq./L, potassium 3.5 mEq./L, co2 59 Vol.%, urinalysis unremarkable, WBC 10,800, Hgb. 15.0 gm., 66% polys, 29% lymphs, 1% bands, 1% monos, 3% Eos, VDRL nonreactive, ceph floc at 24 hours 0, at 48 hrs 1+. The electroencephalogram report was read as follows:

The resting record is disorganized. It is dominated by a large amount of low to medium voltage 6 to 7 c.p.s. activity present over both hemispheres, particularly well seen posteriorly. At times the 6 to 7 c.p.s. activity occurs in long runs. In addition, low voltage rapid activity is seen over both hemispheres and some 4 to 5 c.p.s waves are intermingled. Only a small amount of Alpha range activity is noted. With hyperventilation the 6 to 7 c.p.s. activity becomes much more prominent over both hemispheres. No focal or lateralizing signs are present.

Ten days later the electroencephalogram read:

The record is disorganized. It contains a small amount of alpha activity at 8 to 10 cps. which is noted to travel over both hemispheres in general distribution. Low voltage, rapid activity, is also intermingled bilaterally. Again, this background, 6 to 7 cps., waves and some 4 to 5 cps. waves are intermingled in a disorganized fashion. Hyperventilation did not cause any essential change in tracing, although the alpha activity does become somewhat more prominent. This is a mildly to moderately diffusely abnormal tracing, because of its irregularity and disorganization and the slowness. No focal, lateral or paroxysmal signs are noted. The current tracing is improved over the prior record which was taken on 11/9/70 in that it is no longer dominated by the 6 to 7 cps. activity which was so prominent at that time.

The patient was uneventfully withdrawn from the Darvon® over a period of four days. Medication was stopped at his own request. He experienced no discomfort and felt that "cold turkey" withdrawal could have been effected with no appreciable discomfort. Wolfe, Reidenberg, and Vispo[4] reported a patient with Darvon® addiction who demonstrated abstinence symptoms on withdrawal. After a little more than two weeks in the psychiatric unit, our patient requested discharge. He said that he felt completely "clean" and had no desire for Darvon® at all.

He wanted to return to his family and fiancee. Although expressing great interest in psychotherapy, he never actually entered treatment, and was lost to follow up.

The predisposition to addiction in this young man can be seen from the brief history. Constantly surrounded by three "mothers," he was never allowed to experience any discomfort. Drugs for his asthma were literally placed in each of his pockets, so that he would not experience even a moment's discomfort after the first signal of an attack.

Drugs took on the meaning of transitional objects to the patient. The transitional object denotes a symbolic representation of the mother. It depicts maternal security, warmth, and nurture to the child. Most commonly, the transitional object is seen as the beloved "Teddy-Bear," or the "Linus" blanket of childhood.

Maternal overprotection, childhood asthma, and paternal addiction to alcohol all contributed heavily to the formation of an addictive personality. When he was hospitalized following the automobile accident, and treated with narcotic drugs, the soil was very fertile indeed. The contribution by well-intentioned pharmacists all but put the topping on the cake.

Darvon® is not generally considered a highly addicting drug, and its use in such gigantic quantities is most uncommon. Any drug, which causes a change in the perception of inner feelings, and alters consciousness, is potentially addicting. Physicians and pharmacists alike should carefully reconsider their role as potential, if unwitting, contributors to the problems of drug addiction.

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185 Prospect Avenue

Recruitment of Blood Donors

The critical blood shortages experienced in 1967 in New York and other major cities brought into sharp focus the potentially tragic effect of an inadequate blood supply and dramatized the need for a revitalized effort to recruit volunteer blood donors.

One particularly exciting and innovative approach to recruiting volunteers was described in great detail by Robert J. Wild, administrative director of the Dubuque (Iowa) Blood Bank Association, in *Medical Laboratory Observer*. The hustling Mr. Wild whipped up a variety of unique publicity gimmicks. Among his efforts: an annual art contest in local schools to draw recruiting posters (cash awards were given and awards presentations covered by newspapers, radio, and TV); periodic talks to civic, community, and church groups; public service spots on local radio, TV, and billboards; a disc jockey who gave blood live over the air; a booth at the county fair; ad insertions in statements from banks, department stores, and utility companies; notices in church bulletins, and a reminder to donate printed on a million milk containers.

The Dubuque Blood Bank Association now has a total of more than 9,000 active donors, or 10 per cent of the county's population, and more than 65 per cent of the voluntary donors are younger than 40 years of age.

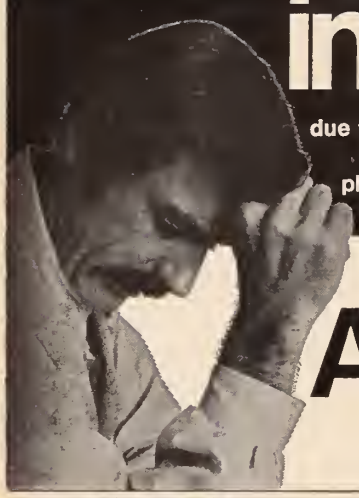
The treatment of

impotence

due to androgenic deficiency in the American male.
The concept of chemotherapy plus the physician's psychological support is confirmed as effective therapy.

NEW CLINICAL STUDY

The Treatment of Impotence with Methyltestosterone Thyroid (100 patients—Double Blind Study)
T. Jakobovits
Fertility and Sterility, January 1970
Official Journal of the American Fertility Society



Android®

(thyroid-androgen) tablets



Double-Blind Study and Type of Patient:
100 patients suffering from impotence. Of the patients receiving the active medication (Android) a favourable response was seen in 78%. This compares with 40% on placebo. Although psychotherapy is indicated in patients suffering from functional impotence the concomitant role of chemotherapy (Android) cannot be disputed.

Choice of 4 strengths:

Android

Each yellow tablet contains:
Methyl Testosterone ..2.5 mg.
Thyroid Ext. (1/6 gr.) ..10 mg.
Glutamic Acid .....50 mg.
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Dose: 1 tablet 3 times daily.
Available:
Bottles of 100, 500, 1000.

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Android-HP
HIGH POTENCY

Each red tablet contains:
Methyl Testosterone ..5.0 mg.
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Thiamine HCL .....10 mg.
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Available:
Bottles of 100, 500, 1000.

Android-X
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Each orange tablet contains:
Methyl Testosterone ..12.5 mg.
Thyroid Ext. (1 gr.) ....64 mg.
Glutamic Acid .....50 mg.
Thiamine HCL .....10 mg.
Dose: 1 or 2 tablets daily.
Available:
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Android-Plus
WITH HIGH POTENCY B-COMPLEX AND VITAMIN C

Each white tablet contains:
Methyl Testosterone ..2.5 mg.
Thyroid Ext. (¼ gr.) ...15 mg.
Ascorbic Acid (Vit. C) .250 mg.
Thiamine HCL .....25 mg.
Glutamic Acid .....100 mg.
Pyridoxine HCL .....5 mg.
Niacinamide .....75 mg.
Calcium Pantothenate .10 mg.
Vitamin B-12 .....2.5 mcg.
Riboflavin .....5 mg.
Dose: 2 tablets daily.
Available: Bottles of 60, 500.

Contraindications: Android is contraindicated in patients with prostatic carcinoma, severe cardiorenal disease and severe persistent hypercalcemia, coronary heart disease and hyperthyroidism. Occasional cases of jaundice with plugging biliary canaliculi have occurred with average doses of Methyl Testosterone. Thyroid is not to be used in heart disease and hypertension.

Warnings: Large dosages may cause anorexia, nausea, vomiting abdominal pain, diarrhea, headache, dizziness, lethargy, paresthesia, skin eruptions, loss of libido in males, dysuria, edema, congestive heart failure and mammary carcinoma in males.

Precautions: If hypothyroidism is accompanied by adrenal insufficiency the latter must be corrected prior to and during thyroid administration.

Adverse Reactions: Since Androgens, in general, tend to promote retention of sodium and water, patients receiving Methyl Testosterone, in particular elderly patients, should be observed for edema.
Hypercalcemia may occur, particularly in immobilized patients: use of Testosterone should be discontinued as soon as hypercalcemia is detected.

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Write for literature and samples: BROWN THE BROWN PHARMACEUTICAL CO., INC. 2500 West 6th Street, Los Angeles, California 90057

This appears to be the first case ever reported of spontaneous rupture of the spleen during anticoagulant therapy for pulmonary embolus.

Spontaneous Splenic Rupture in an Anticoagulated Patient*

A Case Report

Murray H. Seltzer, M.D. and Edward P. Quarantillo, Jr., M.D.
Fort Dix (NJ)

Spontaneous rupture of the normal spleen is documented in the literature, but it is noted to be an infrequent occurrence. [1, 2, 3, 4] One would anticipate a higher incidence of this in patients who are anticoagulated. A review of the literature between 1952 and 1972 yielded only one case report[1] of spontaneous splenic rupture during anticoagulant therapy. Herein is presented another such patient.

A thirty-eight year old female was admitted to the medical service at Walson Army Hospital at Fort Dix, with a six-week history of right-sided pleuritic chest pain, intermittent fever, and a non-productive cough. Bilateral basilar infiltrates with small pleural effusions had been noted on x-rays. Her past history revealed travel to many points within the USA and Newfoundland. She did not use tobacco. Review revealed possible rheumatic fever as a teenager and a fifteen year history of migratory arthritis. The patient had no history of thrombophlebitis or any previous abdominal surgery.

On admission her temperature was 99, blood pressure 130/70, and pulse 100. Examination of the chest disclosed splinting respirations bilaterally. Neither friction rubs nor rales were heard. Examination of the heart revealed a physiologic split second pulmonic sound, however, no murmurs were heard. No evidence of arthritis was found and the remainder of the physical examination was within normal limits.

Laboratory studies as follows: hemoglobin, 13.8 gms; hematocrit 41.3 per cent; WBC 6100, differential 72 polys, 5 bands, 1 lymphocyte and 2 eosinophils; urinalysis showed rare red blood cells, 4-6WBC/HPF, and few bacteria. Lee White clotting time was 8 minutes, 3 seconds. Blood gases disclosed a pH of 7.45, pC02 of 36.5, p02 80.7, and 96.6 per cent oxygen saturation. Bilirubin was 0.7 total, alkaline phosphatase 13.1 King Armstrong units, SGPT 15RF, SGOT 68K. Latex fixation was non reactive. Sodium 138 mEq/L., potassium 4.1 mEq/L., chlorides 98 mEq/L., and CO_2 26 mEq/L. Serology—negative. Prothrombin time: patient 14 sec., control 12.5 sec.

Presumptive diagnosis was viral pneumonia. Lung scan was read as consistent with pulmonary embolus. The patient was treated with 5000 units of intravenous heparin every four hours for ten days. Lee White clotting times remained between 11 and 14 minutes. Twenty milligram doses of Coumadin® (sodium warfarin) were given on both the eighth and ninth days of herapin therapy. A repeat scan on the tenth day of anticoagulation therapy revealed a defect at the right lung base but was not diagnostic. The patient's pulmonary function studies were indicative of severe restrictive disease but not obstructive disease.

On the eleventh day of anticoagulant therapy (residual Coumadin® only) the patient who had been ambulatory developed sudden hypotension, left anterior chest pain, shortness of breath, and diaphoresis. She was diagnosed as having a recurrent pulmonary embolus and was treated with heparin 10,000 units intravenously. Prothrombin time prior to the incident was 29 seconds with a control of 11.5 seconds. During the course of the next 12 hours, her chest x-ray was unchanged but her hematocrit dropped from an admission level of 41.3 per cent to 31.0 per cent. Stool and gastric aspirant were negative for gross or occult blood as was the urine.

Surgical consultation was obtained and following a diagnosis of hypovolemic shock the patient was stabilized with four units of whole blood and two liters of 5 per cent dextrose and 0.9 per cent saline administered rapidly through a subclavian central venous pressure catheter. The patient's abdominal paracentesis yielded ten cc. of non-clotting blood. Protamine Sulfate, 5 ml., and Vitamin K—2 cc.—were administered intravenously.

Emergency exploratory laparotomy was done and 5,000 cc. of blood were evacuated from the abdomen. The spleen was found to be ruptured at its tip secondary to what appeared to be a subcapsular hematoma. No peri-splenic adhesions were found. Final report revealed the spleen to be of normal size and histology. The patient had an uneventful post-operative course and was maintained on heparin 5,000 units intravenously every four hours for one week.

* From the Department of Surgery, Walson Army Hospital, Fort Dix, New Jersey. Dr. Seltzer is formerly Chief Resident in General Surgery, Hospital of the University of Pennsylvania, Philadelphia, and Instructor in Surgery, University of Pennsylvania. Dr. Quarantillo is Chief, Department of Surgery, Walson Army Hospital, Fort Dix, New Jersey, and formerly, Chief, United States Army Medical Research Team (WRAIR) 249th General Hospital, Camp Drake, Japan.

The patient was questioned for a history of trauma either prior to her hospital admission or during the hospitalization. No history of even minimal trauma could be obtained. The diagnosis of recurrent embolus was logical in such a patient who developed sudden left chest pain, shortness of breath and hypotension; particularly when she was already under treatment for a pulmonary embolus. The sudden drop in hematocrit was the major factor that alerted the attending physicians to the possibility of hemorrhagic shock as opposed to a recurrent pulmonary embolus.

We would strongly suggest that a hemoglobin and hematocrit be repeated immediately in any anticoagulated patient who develops signs or symptoms of recurrent pulmonary embolus prior to performing x-ray and scanning procedures. A significant drop in these values should naturally alert the physician to the likelihood of acute hemorrhage.

In the case report cited above in which spontaneous rupture occurred during anticoagulant therapy, the patient was being treated for a myocardial infarction. To the best of our knowledge, our patient is the first reported case of spontaneous splenic rupture as an inpatient during anticoagulant therapy for presumed pulmonary embolus.

Summary

A patient who was anticoagulated for a pulmonary embolus incurred a spontaneous splenic rupture. Although signs and symptoms of spontaneous splenic rupture may be initially confused with a recurrent pulmonary embolus, the precipitous drop in hemoglobin and hematocrit is diagnostic of acute hemorrhage.

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Walson Army Hospital

Ambulance Reporting Form

The American Medical Association announces the availability of a uniform Ambulance Reporting Form. This has been field-tested by the New York State Department of Transportation and it is still being refined. The form provides a record of performance to the ambulance companies themselves so that they can be used as trip tickets. It documents the degree of participation of each squad member and can be used for case reports, study, and comment. For an entire company, the forms constitute a guide to planning for distribution of ambulance services, indicating areas where there are an inadequate number of ambulances or where there are too many. A study of the report shows where there is need for strengthening service capability. In a sense, the form is a check list which constitutes a reminder to members of the squad and is sort of a continuous training instrument. The form is so designed that it can be incorporated as part of the subsequent in-patient hospital record, if the hospital so desires. Some of the information developed on the form is very valuable for clinical purposes, such as knowing which pupil dilated first, which limb was paralyzed first, where the twitching began, or whether there has been any change in degree of consciousness and the pulse rate. The form also should be some protection against malpractice suits originating in actions in the emergency room.

For further information write to the Commission on Emergency Medical Services, American Medical Association, 535 North Dearborn Street, Chicago, 60610.

Seasonal variations in hypercholesterolemia were found in a screening survey.

Hyperlipoproteinemia Survey

Hugo C. Pribor, M.D., *et al.*
Metuchen

A significant correlation between high plasma lipoprotein levels and cardiovascular disease has been established by numerous investigators.[1, 2, 3, 4] Although a cause and effect relationship has not been proved, prevention through dietary and drug control of the lipoprotein level is clearly a good possibility. There is even experimental evidence to suggest that lowering blood cholesterol may improve existing coronary atherosclerosis.[3]

A basic screen consisting of cholesterol and triglyceride determinations is adequate to eliminate from further study a high percentage of the population who, having low or normal values for both tests, cannot fall within the five major types defined by Frederickson.[5] Electrophoresis of sera from individuals with elevated test values will identify those with one of the recognized types. This classification is essential to determine appropriate dietary management. It is surprising, in view of the high incidence of cardiovascular disease in the U.S.A., that routine screening has not been undertaken. A population cognizant of its lipoprotein status can be subjected to large-scale dietary management through mass media education.

Many hospitals have in their admissions battery an SMA-12 panel which includes a cholesterol determination. Thus, a screen for hyperlipoproteinemia can be implemented in hospitalized patients by the addition of a triglyceride assay. On the basis of a preliminary study[6] we recommended the inclusion of this test in the routine battery for medical admissions at Perth Amboy General Hospital.

This report describes the results of screening over 3000 unselected medical admissions and phenotyping those with hyperlipoproteinemia. Sex differences in the incidence of types II and IV were encountered. Both hypercholesterolemia and hypertriglyceridemia were found more frequently in the winter than in the spring.

Population studies included 3,103 medical admissions to Perth Amboy General Hospital between February 1 and June 23, 1971. Twelve hundred and eighty-four were males and 1,819 females. Bloods were drawn after a 12 hour fast. Sera from patients with a cholesterol level greater than 250 mgms per cent and/or a triglyceride level greater than 150 mgms per cent were examined by lipoprotein electrophoresis. Cholesterol levels were determined as part of the SMA-12 panel using Huang's modification[7] of the Liebermann-Burchard procedure.[8] Triglycerides were assayed using a colorimetric method based on the Hantzsch reaction.[9] The migration patterns through cellulose acetate plates were scanned using a Beckman densitometer interfaced with a Spear B-D computer.

Classification of Hyperlipoproteinemia

The method was essentially that recommended by Frederickson, *et al.*[31] The normal limits for our procedure represent the mean ± 2 standard deviations for a series of blood donors.

	Limits (%)	
Lipoprotein	*Lower*	*Upper*
Alpha	28	52
Pre-beta	7	28
Beta	33	52
Chylomicrons	0	2

The Spear B-D computer was programmed to perform the classification.

*Dr. Pribor is presently President and Director of the Center for Laboratory Medicine, Metuchen (NJ). Co-authors are Marvin Shuster, M.D., Associate Director of Laboratories at Perth Amboy (NJ) General Hospital, and Anne L. Gillen, B.A., Patrick Brown, B.A., and Scott Turner, B.A.

Results

The over-all results of the survey are summarized in table I. Thirty-four per cent of the patients studied had elevated cholesterols and/or triglycerides. Sixty-six per cent were not elevated with respect to these two tests. Nineteen per cent of the population were subsequently phenotyped. Eleven per cent were type II and 8 per cent were type IV. Four type III's and one type I were identified. Fifteen per cent of the patients had hypercholesterolemia and/or hypertriglyceridemia but were not classifiable as one of Frederickson's types.

Significant sex differences were encountered. Type II occurred significantly more often among females than among males (12.5 per cent vs. 9.8 per cent; $P < .05$). Eleven per cent of males and only six per cent of females were classified as type IV. The four type III phenotypes were all females.

An interim analysis based on data collected up to March 20, led us to suspect that seasonal differences were also occurring. In table 2 the data are broken down by sex and season. Significantly fewer patients, both male and female, passed the preliminary screen in the winter months. Seventy-five per cent of the population passed the screen in the spring months but only 48 per cent of those surveyed in the winter. This seasonal difference was associated with increased incidences of both hypercholesterolemia and hypertriglyceridemia in the winter months. The sensitivity of the preliminary screen did not appear to differ seasonally; i.e., approximately the same proportion of those selected by the screen were subsequently typed.

The relationship between cholesterol and trigylceride abnormalities and the types of hyperlipidemia detected is shown in table 3. One hundred and sixteen (76 per cent) patients with hypercholesterolemia and normal triglyceride levels were type II's. Thirty-two per cent of those with elevated triglycerides and normal cholesterols were type IV's. While our preliminary screen selected all patients with triglycerides exceeding 150 mgm per cent, no patient with a triglyceride level

Table 1

Summary of Results of Screening Program

	Male		Female		Total	
	No.	%	No.	%	No.	%
Screened	1284	—	1819	—	3103	—
Passed	803	62.5	1244	68.4	2047	66.0
Failed	481	37.5	575	31.6	1056	34.0
Not Followed	55	—	53	—	108	—
Followed:	426	—	522	—	948	—
Type I	0	0.0	1	0.06	1	0.03
II	111	9.8	206	12.5	317	11.4
III	0	0.0	4	0.24	4	0.14
IV	123	10.8	92	5.6	215	7.7
Not Typed	192	16.9	219	13.3	411	14.7

Per cent of total population screened adjusted for patients not followed

Table 2

Sex and Seasonal Differences—Preliminary Screen

Elevated Tests	Season	Males No.	%	Females No.	%	Totals No.	%
	Winter	42	9.5	90	14.4	132	12.4
Cholesterol	Spring	15	1.8	25	2.1	40	2.0
Only	P (Seasons)	< .001		< .001		< .001	
Cholesterol	Winter	35	8.0	86	13.8	121	11.4
and	Spring	91	10.8	102	8.5	193	9.5
Triglyceride	P (Seasons)	N.S.		< .001		N.S.	
	Winter	149	33.9	150	24.1	299	28.1
Triglyceride	Spring	149	17.7	122	10.2	271	13.3
Only	P (Seasons)	< .001		< .001		< .001	
	Winter	214	48.6	297	47.7	511	48.1
Neither	Spring	589	69.8	947	79.2	1536	75.3
	P (Seasons)	< .001		< .001		< .001	
	Winter	440		623		1063	
Total	Spring	844		1196		2040	

P values based on chi-square tests.

Table 3

Distribution of Types Among Patients with Elevated Cholesterols and/or Triglycerides

Type	Cholesterol Only No.	%	Cholesterol and Triglycerides No.	%	Triglyceride Only No.	%
I	0	0.0	1	0.3	0	0.0
II	116	75.8	201	66.1	0	0.0
III	0	0.0	2	0.7	2	0.4
IV	0	0.0	59	19.4	156	31.8
Not Typed	37	24.2	41	13.5	333	67.8
Total	153		304		491	

Table 4

Distribution of Triglyceride Levels Among Type IV's

Mgm%	No.	%
160-199	18	8.4
200-249	45	20.9
250-299	35	16.3
300-349	30	14.0
350-399	24	11.2
400-449	39	18.1
450-500	7	3.2
500	17	7.9
	215	

Table 5

Distribution of Cholesterol Levels Among Type II's

Mgms%	No.	%
251-299	167	52.7
300-349	113	35.6
350-399	24	7.5
400-450	8	2.5
450+	5	1.6
	317	

Table 6

Age Distribution for Types II and IV

	II			IV		
Age	M	F	Total	M	F	Total
0-9	0	0	0	0	2	2
10-19	0	7	7	4	2	6
20-29	7	23	30	7	12	19
30-39	13	14	27	28	14	42
40-49	32	34	66	33	17	50
50-59	27	47	74	25	21	46
60-69	17	48	65	13	11	24
70-79	11	22	33	11	8	19
80-89	3	10	13	2	4	6
90-99	1	1	2	0	1	1
Total	111	206	317	123	92	215
Mean Age	52.5	53.5	53.0	48.1	48.9	48.4

Table 7

Breakdown of Non-Typable Patients with Hypercholesterolemia and/or Hypertriglyceridemia

No. Cases	Cholesterol	Triglyceride	Electrophoretic Pattern
46	Normal	Elevated	Normal
21	Elevated	Elevated	Normal
2	Elevated	Elevated	Normal
101	Normal	Elevated	Hyperbeta
27	Normal	Elevated	Hypoalpha
7	Elevated	Elevated	Hypoalpha
2	Normal	Elevated	Hyperalpha
1	Elevated	Normal	Hyperalpha
2	Normal	Elevated	Hyperalpha & Hypoprebeta
1	Elevated	Normal	Hyperalpha & Hypoprebeta
1	Elevated	Elevated	Hypoprebeta
1	Normal	Elevated	Hypobeta
1	Normal	Elevated	Hyperalpha & Hypobeta

Based on data collected in spring months.

less than 160 mgms per cent was subsequently identified as a type IV hyperlipidemia. The distribution of triglyceride levels among type IV individuals is shown in table 4. Only 8.4 per cent of these patients had triglyceride levels between 160 and 199. In sharp contrast is the distribution of cholesterol levels among type II's (table 5). Over one half of this group had cholesterol levels within 50 mgms per cent of the upper "normal" limit used in this study. This truncation at the lower end of the frequency distribution might indicate that the limit chosen (250 mgms per cent) is too high for the type of population studied (see discussion).

The age distributions for patients with type II and type IV hyperlipoproteinemia are presented in table 6. Type IV occurred in a significantly younger age group than type II. There was no significant sex difference in the age at which either type was encountered.

At the time of the interim analysis the decision was made to maintain a log of the complete results for all patients with hypercholesteremia and/or hypertriglyceridemia who could not subsequently be classified as one of Frederickson's types. In table 7 the results for 207 unclassified patients are summarized. Almost one-half of them had elevated triglycerides associated with hyperbetalipoproteinemia but a normal cholesterol. Some of these represented borderline cases for "normal" cholesterol level. Sixty-nine of the 207 cases had normal electrophoretic patterns. The highest cholesterol value among these patients was 405 mgms per cent; the highest triglyceride value, 535 mgms per cent.

Discussion

The surveying of populations for abnormalities often requires that concessions be made to permit implementation with a minimum of confusion. In the survey described in this report there were four such concessions. First, adherence to Frederickson's condition requiring a normal diet for 7 to 14 days prior to lipoprotein interpretation was abandoned due to the type of population studied. It is probable that many of the patients did not satisfy this condition. Second, in the interest of simplicity, single sets of normal limits were used for tests in which there are established sex and age differences. Third, no effort was made to eliminate those patients who might have a hyperlipoproteinemia secondary to other disease. And finally, repeat determinations to verify abnormalities were left to the discretion of the attending physician.

The seasonal difference in the proportion of patients selected by the cholesterol-triglyceride screen may be pertinent in large scale surveys of asymptomatic populations. If the relationship between cardiovascular disease and hyperlipoproteinemia is time related, as appears likely, those at highest risk would have a persistent rather than a transient elevation. Surveying in that season, when the lowest incidence occurs, would tend to select this high risk group. It has been reported[10] that cholesterol levels are higher in the spring and fall than in the winter and summer. In contrast, our population of medical admissions had a higher incidence of both hypercholesterolemia and hypertriglyceridemia in the winter than in the spring. Whether this inconsistency is accounted for by seasonal variations in the types of admissions or by geographic differences requires further study.

The higher incidence of type IV among males coupled with its occurrence in a significantly younger age group is of particular interest. Perhaps this accounts, at least in part, for the greater incidence of cardiovascular disease among males. Kuo[4] found, in his series of 286 atherosclerotic patients that 91.6 per cent had a type III or type IV (carbohydrate-sensitive) hyperlipoproteinemia. The remaining 8.4 per cent were type II.

We believe that our upper normal limit for triglycerides should be revised upward to 160 mgms per cent because no patient with a value less than this was subsequently identified as a type IV hyperlipidemic. The data also suggest that, for the type of population studied, a normal upper limit of 250 mgms per cent of cholesterol may be too high to detect all type II's. Three observations support this. First, almost one-half of those patients not classifiable by Frederickson's criteria had a "normal" cholesterol level associated with a hyperbetalipoproteinemia. In addition, while only 32 per cent of hypertriglyceridemics were type IV, 76 per cent of hypercholesterolemics were type II. Finally, over one-half of those classified as type II were within 50 mgm per cent of the upper "normal" use in this study.

As pointed out by Frederickson,[5] the setting of normal limits is often arbitrary. "What is 'usual' for one population may not be for another and is not necessarily healthy for either." The difficulty in assessing what is "healthy" has resulted in the arbitrary setting of the safe upper normal cholesterol level by various investigators as 175[12], 210[11], 220[3], 250,[4] and 280[13] mgms per cent. At any rate, in view of Kuo's demonstration[4] of a relatively low incidence of type II hyperlipoproteinemia among patients with atherosclerosis it may be advisable to select only the more severe type II's in screening.

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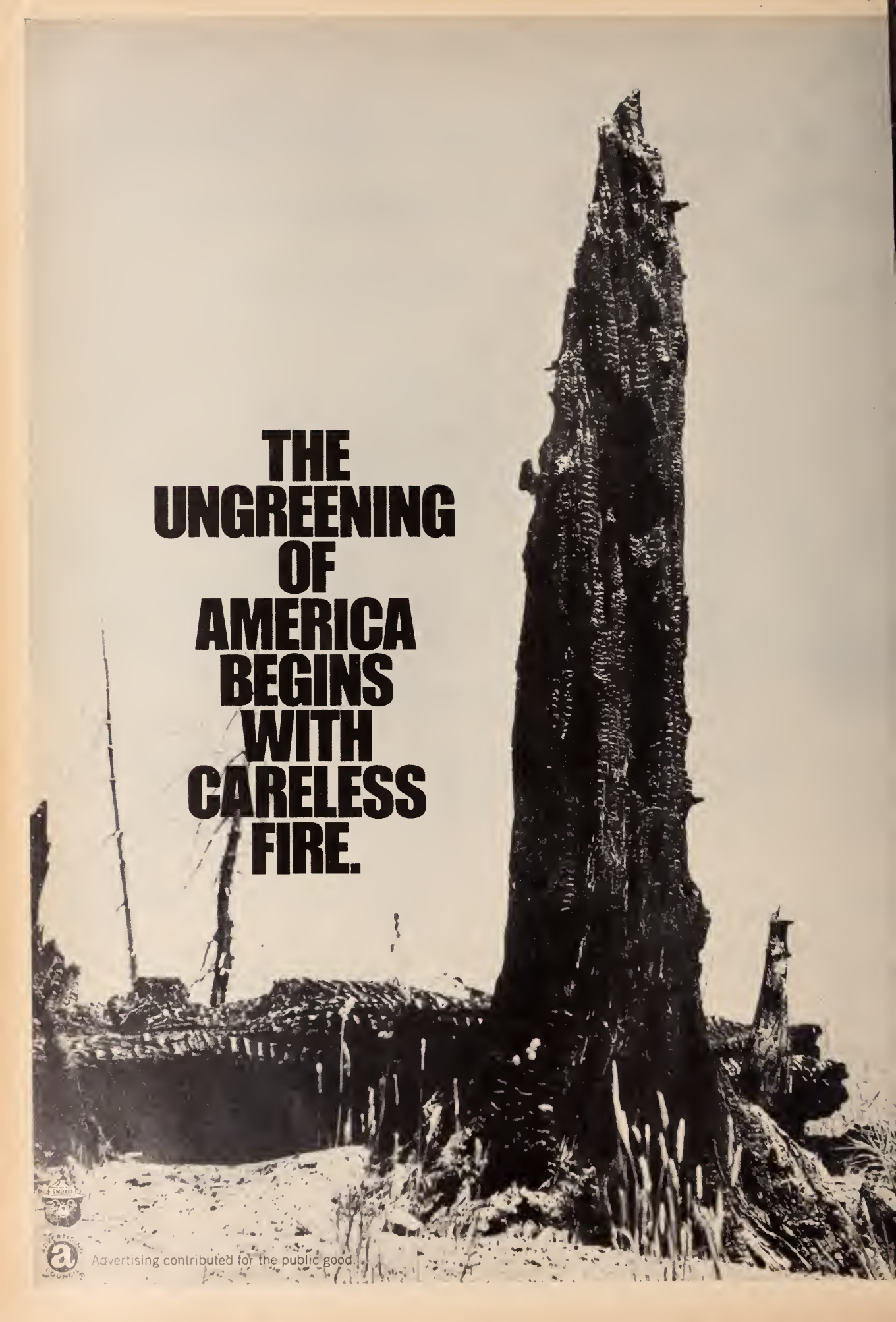
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NEW JERSEY DOCTORS' NOTEBOOK

Trustees' Minutes

March 18, 1973

A regular meeting of the Board of Trustees was held on March 18, 1973, at the Executive Office in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of the significant actions follows:

Definition of Private Practice . . . Concurred in the Executive Committee's approval of the following definition of the term "private practice" and directed that a copy be forwarded to the Health Care Administration Board:

"Private practice" is a term that applies when a licensed physician offers and provides professional medical or surgical care as an entrepreneur (one who organizes, manages, and assumes the risks of a business or enterprise) to patients who seek his services of their own accord or on referral, on the basis of compensation set by the physician and agreed to by the patients. It is essentially a two-party (physician-patient) relationship.

Private practice may be entered into by a single physician or by a number of physicians who, in the interest of accommodating more patients and insuring themselves of controlled hours of patient service and of free time, have agreed to enter into private practice cooperatively.

Committee to Review MSP and HSP Disputed Claims . . . Concurred in the Executive Committee's appointment of Frank J. Hughes, M.D., of Gloucester (4th District) to the Advisory Committee to Review MSP and HSP Disputed Claims. Dr. Hughes was appointed to fill the vacancy created by the resignation of Robert S. Gamon, Jr., M.D.

Health Care Council . . . Approved a suggestion from President D'Elia that MSNJ establish a Health Care Council of Presidents of various organizations involved in the delivery of health care services.

. . . Approved the Executive Committee's authorization for a meeting to be held on Sunday, April 29, at the Executive Offices in Trenton, and directed that invitations be extended to the following organizations:

New Jersey Hospital Association
New Jersey Association of Osteopathic Physicians and Surgeons
New Jersey Nursing Home Association
New Jersey Pharmaceutical Association
New Jersey State Nurses' Association
American Association of Medical Assistants, State of New Jersey, Inc.
New Jersey Chapter, American Physical Therapy Association
Licensed Practical Nurses' Association
New Jersey Dental Society
New Jersey Optometric Association
New Jersey Podiatry Society
New Jersey Veterinary Association

Workshop for County Society Executive Secretaries . . . Concurred in the Executive Committee's authorization for Mr. Maressa to schedule a workshop conference with executive secretaries of component societies and MSNJ's staff—to be held following the Annual Meeting.

Uniform Medical Procedural Terminology and Code Project . . . Directed that Mr. William Berry of HEW be notified that MSNJ's representative in the proposal to collect informational data for the Uniform Medical Procedural Terminology and Code Project will be Karl T. Franzoni, M.D., Vice-Chairman of the Council on Medical Services (see prior Board action, page 320, April 1973 *Journal*.)

Task force on Graduate Medical Education . . . Approved MSNJ's continued participation in the work of the Task Force on Graduate Medical Education and verified that James A. Rogers, M.D., will serve as MSNJ's representative. The above action was taken in response to an inquiry from Stanley S. Bergen, Jr., M.D., President, CMDNJ.

Conference of State Mental Health Representatives . . . Authorized the attendance (with expenses paid) of the Chairman of the Coun-

cil on Mental Health at the AMA's 19th Annual Conference of State Mental Health Representatives. (President D'Elia is empowered to appoint a representative in the event the Chairman is unable to attend.)

Committee on Occupational Health, Workmen's Compensation, and Rehabilitation . . . Approved the following recommendations from the Special Committee on Occupational Health, Workmen's Compensation, and Rehabilitation:

1. That MSNJ take opposition to any proposed ethical change that would allow industrial physicians to give treatment for non-industrial-related conditions for employees and their families.

2. That MSNJ support the concept of the establishment of comprehensive rehabilitation facilities in South Jersey, as proposed by the New Jersey Rehabilitation Commission.

Committee on Medical Defense and Insurance . . . Approved the following recommendations from the Committee on Medical Defense and Insurance:

1. That The Medical Society of New Jersey accept the 25 per cent over-all increase of premium rates (professional liability) for the next fiscal year as submitted by Chubb & Son, Inc.

2. That the method of assessing percentages of costs according to the type of specialty be retained and request be made that the Joseph A. Britton Agency continuously analyze placement in the classes according to experience.

3. That rates for the November 1973 policy year be apportioned as follows:

Class	*Over-all Change*
0	None
7	None
6	10%
1	23%
2	10%
3	15%
4	23%
5	22½%
5 Anesthesiology	22½%
5 Neuro Surgery	22½% plus 50% surcharge of total
5 Obstetrics-Gynecology	22½%
5 Orthopedics	22½% plus 20% surcharge of total
5 Plastic Surgery	22½%

4. That the carriers may settle claims of established liability under the Loss Control Program having a value of $1,000 or less without submittal to MRAC review, provided the consent of the defendant is first obtained, but claims in excess of $1,000 must be submitted to the appropriate county Medical Review and Advisory Committee.

5. That the Board of Trustees approve that the minimum coverage available for Professional Liability Insurance under The Medical Society of New Jersey Program be raised to $25,000-$75,000, effective November 1, 1973.

Committee on Publication . . . Approved the following recommendations from the Committee on Publication:

1. That the Advertising Manager of *The Journal*, Mr. Joseph W. Cookson, be authorized to attend (with expenses paid) a meeting of representatives of state society journals with the Pharmaceutical Manufacturers Association, to be held in New York in June.

2. That the Advertising Manager, Mr. Cookson, and the Assistant Editor, Mrs. Treptow, be authorized to attend the SMJAB Conference, to be held in Atlanta, September 10-11, with the same arrangement for expenses that has pertained in previous years—SMJAB pays the transportation and lodging; meals and incidental expenses have been paid for by MSNJ.

3. That the proposed rate increases in printing costs be approved and that the contract with Hughes Printing Company for printing *The Journal* be signed.

4. That a group of associate editors be appointed to assist Dr. Davidson.

5. That there be permanently assigned to *The Journal* office a staff member whose qualifications lend to training in the procedures necessary for preparing *The Journal* for publication, so as to provide back-up in carrying out the duties assigned to the Assistant Editor.

Conference of Presidents and Presidents-Elect of Component Societies . . . Met with representatives at the 17th Conference of Presidents and Presidents-Elect of Component Societies—22, representing 16 societies. Prior to meeting with the Board, the members of the Conference were addressed by President D'Elia, the Chairman of the Council on Public Relations, the Chairman of the Standing Committee on Medical Education, the Chairman of the Steering Committee to the New Jersey Foundation for Health Care Evaluation, and the Secretary of the Society. This was followed by a question and answer session.

Joint Practice Committee With the New Jersey State Nurses' Association . . . Adopted the following policy statement of the Joint Practice Committee with the New Jersey State Nurses' Association:

The medical and nursing staffs of all hospitals and other agencies and institutions utilizing the services of nurses are urged to develop, in a cooperative spirit, a program expanding the role of the nurse.

1. Consideration is to be given to the formulation of a plan recognizing the diversified professional capabilities of the registered nurse.

The granting of expanded professional privileges should follow completion of formalized educational programs and demonstrated increased professional competence.

2. All such programs are to be supported by sound clinical experience.

Although recognizing the need for establishing educational programs in specialized clinical fields, proper and continuing emphasis should be placed upon evaluating the levels of competence of generalized nursing practice.

Medical College Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

Private Funding Benefits Medical School

As the College of Medicine and Dentistry of New Jersey expands and progresses, we find ourselves increasingly reliant on private sector funding to help us achieve our goals. Although the bulk of funding comes through our state budget and grants from state and federal agencies, growing private support allows us to strive to achieve enrichment and excellence in all our programs.

The additional resources provided us through private funding touch every area of our mission of education, research, and community service. Many of our most successful and worthwhile programs would not have been initiated without liberal support from private business, agencies, and foundations.

For instance, the Robert Wood Johnson Foundation, one of our most generous contributors, recently granted CMDNJ $548,000. These funds represent $493,000 to create a health care delivery planning staff to assist the College in assessing its proper educational and service roles in the health care system throughout the state; and $55,000, awarded for the second year, to allow minority students to participate in remedial work-study programs during the summer to help prepare them for medical school.

The minority student and planning grants are pertinent examples of the importance of private funding in establishing new programs. Our Students for Medicine program received federal funds to support faculty to teach the students during summer vacation. However, since the students could not get full-time employment, they would not have been able to participate without the support from the Robert Wood Johnson Foundation and Commonwealth Fund which provided their stipends. Without these private funds, the program would not have been successful.

In the realm of education and community service, private funding has been responsible for an addition to our primary teaching hospital, Martland Hospital, and provided the base funding for a successful student volunteer program.

The Fannie E. Rippel Foundation, through a $300,000 grant, assisted the College in building a Family Health Care Center which was added to Martland Hospital and dedicated May 24, 1970. All hospital out-patient care was then united within the new center. Shortly thereafter our medical students proposed a program to volunteer their time to help local families and gain early experience in patient contact and health service delivery.

The Student Family Health Center started with a small foundation grant through the Student AMA which led to support from the State Department of Health. When these funds were no longer available, the program, which was providing health care for hundreds of families, was continued through the support of Prudential, Merck, Schering, and Hoffmann-LaRoche. These private sources saved a worthwhile program which will become a regular part of our curriculum this fall, with the entire freshman class indicating their interest in taking part in the center as an elective course of study.

Our Drug Abuse Treatment and Rehabilitation Program is also highly successful and reliant on private funding. Basically, the program consists of screening and care for drug addicts and placing them in appropriate rehabilitation centers affiliated with the College.

Although our staff and facilities are supported through state and federal funds, our affiliates, drug groups such as Odyssey, New Well, Dare, Mt. Carmel Guild, and Integrity, are private agencies which could not receive the major federal staffing support without securing private matching funds. These funds were donated by Victoria Foundation, Turrell Fund, Wallace-Eljabar, Schumann Foundation, Prudential, Kirby Fund, Atlantic Foundation, and Hayden Foundation, among others. Though we receive more than $1 million annually through a federal grant for the program, these funds would not have been received without the private support to the affiliate agencies.

In many other areas private funds helped establish programs that were necessary for us to serve the health needs of the community. Support from the Hunterdon School of Public Health Endowment Fund has allowed us to start our lead poisoning patient health education and sickle cell screening programs; funds from the New Jersey Chapter of the Arthritis Foundation help to maintain the clinic for arthritic patients; the Independent Oddfellows and Rebekahs of New Jersey fund our New Jersey Eye Bank; the New Jersey Lions support our retinal clinic; emergency lead screening was assisted by the Schumann Foundation, Wallace-Eljabar, and Victoria Foundation; the Kiwanis Club of Newark donated equipment to our renal clinic, to name just a few.

Further, private funding has allowed us to attract quality faculty members and physicians, who, in turn, recruit others who are leaders in their respective fields, thereby upgrading the quality of our institutions. Presently these sources include the Johnson and Johnson Associated Industries Fund, American Cancer Society and its New Jersey Division, and the TB-Respiratory Disease Association of New Jersey.

Another noteworthy endowment, from an anonymous donor, helped us to upgrade the social services department at Martland Hospital. This substantial grant provided for five professional social supervisors for the department and allowed us to move into rehabilitation and prevention, and an over-all smoother operation of social services at the hospital.

All told, private sector funding has totaled millions of dollars during the history of the College and has been truly remarkable in establishing CMDNJ as a viable force in the academic world, the community, and the state.

Disclosure Policy of Social Security Administration

Current regulations now permit the Division of Disability Determinations to disclose medical evidence to other agencies or representatives of the applicant which were previously excluded from obtaining such evidence.

The consent of the applicant and the source providing the medical evidence will be necessary before the evidence can be disclosed.

Everything possible will be done to safeguard the privacy and confidentiality as previously, and under no circumstances will disclosure be permitted if it could be harmful or to the disadvantage of the applicant; nor will information be disclosed directly to the applicant.

If you wish further information, please communicate with Eric H. Wolf, M.D., Medical Director, Division of Disability Determinations, 1100 Raymond Boulevard, Room 302, Newark, New Jersey 07102. (telephone—201-648-2527)



Spasm reactor?

Donnatal®!

	each tablet, capsule or 5 cc teaspoonful of elixir (23% alcohol)	each Donnatal No. 2	each Extentab
hyoscyamine sulfate	0.1037 mg.	0.1037 mg.	0.3111 mg.
atropine sulfate	0.0194 mg.	0.0194 mg.	0.0582 mg.
hyoscine hydrobromide	0.0065 mg.	0.0065 mg.	0.0195 mg.
phenobarbital (warning: may be habit forming)	(¼ gr.) 16.2 mg	(½ gr.) 32.4 mg	(¾ gr.) 48.6 mg.

Brief summary. Adverse Reactions: Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Contraindications: Glaucoma; renal or hepatic disease; obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy); or hypersensitivity to any of the ingredients.

A·H·ROBINS A H Robins Company, Richmond, Virginia 23220

2 ways to provide a daily therapeutic supply of Vitamin C: 15 baked potatoes (skins and all!) or one capsule of Allbee® with C

About 20 mg. Vitamin C in one baked potato (2½″ diameter).



To many people the evening meal just isn't complete without potatoes. But your patient would have to eat 15 of them (skins and all!) to get as much Vitamin C as is contained in just one Allbee with C capsule taken daily. A bottle of 30 (month's therapeutic dose) supplies as much ascorbic acid as 450 potatoes, plus full therapeutic amounts of the B-complex vitamins. For the patient who is counting calories, Allbee with C is small potatoes because the B's and C are water soluble. Consider the number of calories in 15 potatoes, not to mention the mountain of butter and sour cream. Albee with C is available at pharmacies in the handy bottle of 30 and the economy size of 100 on your prescription or recommendation.

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PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

INTERNAL MEDICINE— T. N. Paul, M.D., 2900 South Lincoln Avenue, North Riverside, Illinois 60546. Calcutta 1954. Board eligible. Subspecialty, endocrinology. Group, solo, or hospital. Available.

Jae Young Lee, M.D., 3405-11S Wayne Avenue, Bronx, New York 10467. Pusan (Korea) 1968. Board eligible. Hospital, solo, or group, Available July 1973.

OBSTETRICS-GYNECOLOGY— W. Kim, M.D. 7911 Detroit Avenue, Cleveland 44102. Seoul 1961. Board eligible. Group, associate, solo, institution. Available July 1973.

Thomas C. Tsai, M.D., 3990 Bronx Boulevard, Apt. 6D, Bronx, New York 10466. Taipei (Formosa) 1967. Board eligible. Group or partnership. Available July 1973.

Wu-Hsiung Yang, M.D., 40 East Sidney Avenue, Apt. 10L, Mount Vernon, New York 10550. Taipei (Formosa) 1966. Board eligible. Group or solo. Available July 1973.

Allan Zarkin, M.D., 566 First Avenue, New York 10016. Chicago 1963. Board eligible. Partnership. Available.

ORTHOPEDICS— R. Loyde Haney, M.D., 214 East 30th Street, New York 10016. Miami 1964. Board eligible. Solo, partnership, or group. Available July 1973.

Kraisorn Punjasthitkul, M.D., 30 Tuers Avenue, Jersey City 07306. Faculty of Medicine (Thailand) 1965. Solo or partnership. Available July 1973.

OTOLARYNGOLOGY— Stefan A. Jucincki, M.D., 20 Cedar Street, Taunton, Massachusetts 02780. Warsaw (Poland) 1959. Board certified. Group or association. Available June 1973.

PEDIATRICS— Joh W. Kim, M.D., 1770 Grand Concourse, Apt. 1-L, Bronx 01457. Pusan (Korea) 1965. Board eligible. Group, partner, or solo. Available July 1973.

Paul Avondoglio, M.D., 42-30 Hampton Street, Elmhurst, New York 11373. SUNY (Downstate) 1969. Board eligible. Group or partnership. Available July 1973.

Chun H. Lu, M.D., 647 Albany Avenue. Apt. 1-F, Brooklyn, New York 11203. Tai-Wan 1965. Board eligible. Group, partnership, association. Available July 1973.

Yun Chul Pak, M.D., 1533 Townsend Avenue, Apt. 4-H, Bronx, New York 10452. Cho-Nam University (Korea) 1965. Board eligible. Group, solo, or associate. Available July 1973.

Yong-Ho Shin, M.D., 3081 Edwin Avenue, Fort Lee (NJ) 07024. Korea 1964. Board eligible. Group or partnership. Available.

Nursel Eryilmaz, M.D., 14235 Triskett Road, Apt. 202, Cleveland 44111. Ege University (Turkey) 1964. Board eligible. Group or hospital. Available July 1973.

RADIOLOGY— Nurettin Eryilmaz, M.D., 14235 Triskett Road, Apt. 202, Cleveland 44111. Ankara University (Turkey) 1955. Board certified. Group or hospital. Available July 1973.

Sudan Deuskar, M.D., 1567 McGregor Avenue, Montreal 109, P.Q., Canada. Bombay (India) 1968. Board eligible. Group, associate, partnership. Available July 1973.

SURGERY— Ashwin Mehta, M.D., Church Homes Hospital, 100 North Broadway, Baltimore 21231. Baroda (India) 1960. Board eligible. Full time hospital or institution. Available July 1973.

P. L. Puri, M.D., 1011 New Hope Street, Apt. 20A, Norristown, Pennsylvania 19401. New Delhi 1964. Board eligible. Group or Partnership, with or without general practice.

Lun-Hwa Yeh, M.D., 350 West 51st Street, Apt. 6G, New York 10019. Taipei (Formosa) 1966. Board eligible. Institution, group, partnership or solo. Available July 1973.

Methadone for Heroin Addiction

FDA plans to sanction increased use of methadone as a substitute for heroin. Maintenance treatment of patients 18 years and older with oral dosage forms of methadone will be available at about 450 drug addiction centers throughout the United States. Each center is being inspected by health officials and is subject to FDA approval.

To control illicit traffic in methadone, the drug will be available only in approved centers and hospital pharmacies. Accurate record-keeping for the drug will be required. These restrictions do not prohibit use of methadone in the treatment of severe pain or for detoxification of addicts in hospitals.

Methadone taken by mouth prevents heroin

withdrawal symptoms and controls the intense desire or need for heroin. Addicts who stay on methadone maintenance programs are often able to return to a normal life pattern.

FDA's decision was made after consultation with the National Institute of Mental Health and the Justice Department's Bureau of Narcotics and Dangerous Drugs, and was endorsed by The Special Action Office for Drug Abuse Prevention of the White House. FDA also had the advice and opinion of many other groups, such as the AMA's Council on Mental Health. The consensus is that current evidence is sufficient to permit its use for narcotic addiction in adults.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Division of Laboratories and Epidemiology during February and March 1973:

	1973 February	1972 February
Aseptic Meningitis	5	9
Primary Encephalitis	1	1
Hepatitis: Total	189	308
Infectious	148	222
Serum	41	86
Malaria: Total	1	1
Military	0	1
Civilian	1	0
Meningococcal meningitis	3	8
Mumps	169	82
German measles	158	32
Measles	9	74
Salmonella	57	58
Shigella	34	13

	1973 March	1972 March
Aseptic Meningitis	19	6
Primary Encephalitis	0	2
Post-Infectious Encephalitis	0	3
Hepatitis: Total	308	428
Infectious	257	325
Serum	51	103
Malaria: Total	0	1
Military	0	1
Civilian	0	0
Meningococcal meningitis	7	6
Mumps	202	160
German measles	619	95
Measles	25	150
Salmonella	111	88
Shigella	62	37

Rubella

Several months ago we commented on the apparent change of rubella epidemiology as seen in outbreaks during the 1971-72 school year. (See *The Journal* of The Medical Society of New Jersey, Vol. 70, No. 2, February 1973, p. 144) The trend noted in that paper has continued and, in fact, as of April 1, 1973, it seems to be accelerating. Thus far, in the 1972-73 school year, there have been 10 additional outbreaks of rubella, 9 of which were in junior and senior high school populations. Only one outbreak began in an elementary school—where the vaccination levels were poor, about 55 per cent. After rubella started in this elementary school it spread upward into the junior and senior high school populations.

During March, 1973, most rubella activity occurred in Ocean County. Because the outbreaks were widespread in that county, a systematic immunization program has been begun for all elementary school children.

The policy of immunizing elementary school children in communities where junior and senior high school outbreaks are occurring rests on the following premises: most junior and senior high school outbreaks tend to be short-lived; and they do not appear to constitute too much of a risk to pregnant women. It seems inappropriate to risk inadvertently vaccinating a pregnant girl in a junior or senior high school during a mass vaccination program. It is important to stop any significant spread of rubella to an elementary school. Mothers of elementary school children are the most likely group in a community to be in the childbearing years. Women who develop rubella during pregnancy usually acquire the disease from their elementary school-age children. The maximum amount of protection can be afforded to pregnant women with the minimum risk by confining immunization efforts to elementary school children.

Patronize Our Advertisers

Screening Children Under Medicaid

The New Jersey Health Services Program (Medicaid) is actively implementing a program that will encourage all eligible children to enter the mainstream of medicine. The program, known as Early Periodic Screening, Diagnosis, and Treatment (EPSDT), is being developed in response to a federal mandate that requires states to take aggressive steps to screen, diagnose, and treat children under twenty-one years of age.

It is the philosophy of the New Jersey Medicaid Program that children under the care of physicians should not be diverted from the mainstream of medicine to separate "screening facilities." Rather, we believe that eligible children not utilizing medical services should be identified and inducted *into* the mainstream of medicine.

Therefore, the Division of Medical Assistance and Health Services is currently identifying Medicaid children not utilizing health services for referral to physicians and existing medical facilities. We urge all physicians to accept Medicaid children referred, not only for initial complete physical examinations but for total continuing medical supervision including vision, hearing and dental evaluation, referring when necessary. Reimbursement, as is customary, is commensurate with existing procedural codes according to services rendered.

Your dedication to the health needs of our children is recognized. Accompanying this are the basic requirements of a comprehensive program for Early and Periodic Screening, Diagnosis, and Treatment as approved by the Federal government:

1. A complete medical history including:

Medical:

a. Pre-natal, birth, and post-natal history
b. Growth and development
c. Feeding history
d. Past medical history including illnesses, hospitalization, childhood diseases, and allergies
e. Immunization
f. Behavior history
g. Systemic review

Social:

a. Social and family history

2. Assessment of physical growth

3. Developmental assessment (physical and mental):

a. Evaluation of adaptive, social, motor, and speech development, plus
b. Assessment of language development, or
c. Denver Developmental Test

4. Pre-examination screening:

a. Vision screening, appropriate method for age (Holt, Snellen, Titmuss)
b. Hearing screening, appropriate method for age
c. Tuberculin Test

5. A complete physical examination by a physician

6. Laboratory screening, as indicated:

a. Hemoglobin/Hematocrit by one year of age
b. Four-test dipstick urine screening or routine urinalysis; microscopic by two-three years.
c. Sickle-cell test after six months of age where appropriate. This should not be repeated if a valid test has been previously done. Referral for Hemoglobin Electrophoresis, if screening is positive.
d. Lead screening
e. Refer for OVA parasites on children recently moved from Puerto Rico
f. Refer for other tests

7. Assessment of immunization status and updating immunizations

8. Dental Screening

9. Referral of all abnormalities for further diagnosis and treatment.

The Old Helping Hand Organization

Many of the younger doctors do not know that there exists in our state a unique helping hand organization, known as the Society for the Relief of the Widows and Orphans of Medical Men in New Jersey. This organization provides immediate financial assistance to the dependents of a deceased member. It lends money without interest to assist widows and orphans of doctors who have known adversity.

For details, write to the Society at P.O. Box 95, Belleville, New Jersey.

Therapeutic Drug Information Center

The New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center is a project of the New Jersey Regional Medical Program. The Center serves as a source of information on specific problems, articles, and reports concerning pharmaceutic and therapeutic information. Updated information and a specialized library maintained by the Center contain complete information about U.S., foreign, investigational, and proprietary drugs, including their identification, availability, interactions, compatibility, side effects, dosage, adverse reactions, etc. The Center is staffed by specially trained pharmacists, and Walter Modell, M.D., Professor of Pharmacology, Cornell Medical College, serves as pharmacologist consultant. Jack M. Rosenberg, Pharm.D., is the project director. The service is provided free, open seven days per week, and is available at a local telephone number (201) 445-4900, Ext. 304. To date, over 1,500 questions have been received by the Center, the majority from physicians. Below are four questions and answers handled by the Center this past month

Question: Will there be a clinically significant interaction if Librium and Elavil are given concomitantly?

Answer: According to Hansten[1] additive sedative or enhanced atrophine-like effects may occur with concomitant use of chlordiazepoxide (Librium) and a tricyclic antidepressant (Elavil).

Kline[2] states that it is safe to combine chlordiazepoxide with tricyclic antidepressants. It should be noted that there is a commercially available product in Europe called Limitrol, which is a combination of chlordiazepoxide 5 mg and amitriptyline 12.5 mg.

References:
1. Hansten, P.D.: *Drug Interactions,* Lea & Febiger, Philadelphia, 1971, p. 185
2. Kline, N.W.: (Questions & Answers) *JAMA* 210:1928. (1969)

207th Annual Meeting

May 12-15, 1973

Chalfonte-Haddon Hall

Atlantic City

Question: Do you have any information concerning the use of diethylstibestrol as a postcoital contraceptive?

Answer: A study by Kuchera[1] presents the follow-up findings in 1000 women of child-bearing age who were given, within 72 hours of sexual exposure, 25 mg of diethylstilbestrol twice a day for 5 days. No pregnancies resulted. The study indicated that 45.2 per cent of the women had virtually no side effects and those who did experience effects reported no serious ones. It should be noted that this study emphasized that this is an emergency-type treatment, and should not be used as a routine contraceptive agent.

Reference:
1. Kuchera, L.: *JAMA,* 218:562-563, (Oct. 25) 1971

Question: Do you have any information concerning the relative effectiveness of influenza virus vaccine given in a dose of 0.1 ml intradermally as compared to 1.0 ml subcutaneous?

Answer: Saslaw, *et al.* [1, 2] reported that 0.1 ml. of influenza virus vaccine, polyvalent, given by the intradermal route, resulted in an antibody response comparable to that obtained with 1.0 ml. of the same vaccine given subcutaneously. A study by Eichoff[3], however, states that the weight of evidence appears to favor the concept that total anigenic mass is the critical determinant of serological response. 0.1 ml. intradermally cannot be made equivalent to 1.0 ml. regardless of the route of administration. The American Hospital Formulary Service[4] states that antibody response to intracutaneous injection of 0.1 ml. of influenza polyvalent vaccine is appreciable, but is not as high as that resulting from subcutaneous injection of 1 ml. Intracutaneous injection of 0.1 ml. may, however, be advantageous in vaccinating small children, and in the conservation of vaccine during epidemics.[4]

References:
1. Saslaw, S., *et al.*: *Am J. Med Sci,* 248:273 (September 1964)
2. Saslaw, S., *et al.*: *Am J. Med Sci,* 251:195 (February 1966)
3. Eichoff, T. C.: *J Infec Dis,* 123:446 (April 1971)
4. American Hospital Formulary Service, American Society of Hospital Pharmacists, Washington, D.C., 1972

Question: Do you have any information on recommended dosages of penicillin used to treat early syphilis?

Answer: Drugs of Choice 1970-71[1] states that early syphilis can be treated adequately with 6 million units of procaine penicillin G given in divided daily doses over a period of 8 to 10 days. Intramuscular benzathine penicillin G, 2.4 to 4.8 million units, can be given in 2 injection sites (half in each buttock) and has the advantage of providing effective therapy after a single treatment.

The New York City Health Department recommends the use of 4.8 million units of benzathine penicillin G. The drug is administered intramuscularly in a regimen of two 2.4 million-unit injections given one week apart.[2]

References:
1. Modell, W.: *Drugs of Choice* 1970-1971, St. Louis, Mosby, 1970, pp. 165-166
2. Health Department, City of New York, personal communication.
3. New Jersey Department of Health, personal communication, January, 1973

ANNOUNCEMENTS

Seminar on Ethics in Biomedical Sciences

The College of Medicine and Dentistry of New Jersey announces the last of the "President's Seminars" on ethics in biomedical sciences. These are made possible by a special grant from Merck and Company of Rahway. Sessions will be held at the Rutgers Medical School, CMDNJ, University Heights Campus, Piscataway, on May 9 and 30.

May 9 (7 p.m.)	Definition of Death Robert M. Veatch, Ph.D. Institute of Society, Ethics, and the Life Sciences
May 30 (5 p.m.)	World Health Organization and Mental Health T. Adeoye Lambo, M.D. World Health Organization

A question and answer period will follow each presentation. Further information may be obtained by writing to the College of Medicine and Dentistry, 100 Bergen Street, Newark 07103.

Psychiatric Graduate Programs

Fair Oaks Hospital in Summit, in cooperation with the Academy of Medicine of New Jersey, has arranged the following programs in a series on continuing education in psychiatry:

May 16	Existential Psychiatry Donald H. Gent, M.D.
May 24	Family Therapy Jay W. Fidler, M.D.

Sessions are held at the hospital, 19 Prospect Street, Summit, and convene promptly at 3 p.m. Further information may be obtained from Granville L. Jones, M.D., Director of Research and Education at the hospital.

Radiologic Seminars

Rutgers Medical School (CMDNJ) announces the last in its series of seminars in radiology:

May 16	Head and Neck Cancer Patrick J. O'Kelley, M.D. St. Peter's General Hospital

Session convenes at 5 p.m. in Link Room 203 at the Basic Science Building, Rutgers Medical School, New Brunswick—no fee. Further information may be obtained by writing to Charles P. diLiberti, M.D., Raritan Valley Hospital, 257 Greenbrook Road, Green Brook, New Jersey 08812.

Trauma Course in Southern New Jersey

The American College of Emergency Physicians and the New Jersey Committee on Trauma of the American College of Surgeons announces its fourth annual symposium for emergency department personnel. The program is scheduled for November 8 and 9, 1973 at the Cherry Hill Inn, Cherry Hill, New Jersey, and is designed to interest nurses, paramedics, and administrators as well as the physician engaged in the practice of emergency medicine. Registration fee is $40 until October 15; after that date the cost is $50. Checks should be made payable to "Trauma Committee, ACS" and sent to Herbert P. MacNeal, M.D., 7 Wyndmoor Drive, Convent Station, New Jersey 07961. Please make your hotel reservations directly with the Inn—$19 single and $28 double, plus tax.

AMA Convention Registration Fees

Because medical students and hospital-staffed interns and residents are eligible for AMA membership, either directly or through local societies, the AMA will no longer register and admit these groups at the AMA conventions as non-members unless they pay the non-member registration fee—non-member physicians (including interns and residents)—$25; non-member medical students—$10; and guests of non-members—$5. There is no registration fee for AMA members and their guests.

LETTERS TO THE JOURNAL

Remarkable Similarity

January 9, 1973

Dear Doctor Davidson:

Reference is made to two articles which I found of great interest—"Sudden Death and Metabolic Derangement in Alcoholism with Malnutrition" and "Sudden Death in Alcoholism." The first, by Nevins and Lyon, appeared in the February 1972 issue of *The Journal* of The Medical Society of New Jersey. The second, unsigned, appeared in the *Ames/Diagnostica* for November 1972. There is, as you will note, a striking similarity between the two articles. Since our *Journal* is protected by copyright, I wonder if there has been infringement by the Ames Company. In any case, the propriety of publishing essentially the same article in two places might be questioned.

(signed) Stephen Van D. Chandler, M.D.

March 16, 1973

Dear Doctor Davidson:

I was disturbed by your letter of March 14 concerning the similarity between an article by Dr. Lyon and me published in *The Journal* and a related one appearing in *Ames/Diagnostica* later the same year.

It is true that I consented to have my manuscript revised and reproduced at the request of the editors of *Diagnostica*. The material differs in some respects from that published in *The Journal*, but it is true that substantial portions are identical.

When considering the propriety of permitting publication of the revised manuscript, I felt that this was justifiable since the Ames article makes no reference to my name or institution. It was my impression, therefore, that an anonymous contribution to a journal of this type would not constitute an unethical action. Credit was therefore neither given to me, my institution, nor to your publication.

If, in fact, this is a violation of copyright then I regret it and must apologize to you. On the other hand, I really do not think the same interpretation should apply as to the situation of sending identical material to different established journals and having the author's credits published in both.

Nonetheless, I regret the entire incident and hope this letter of explanation will be satisfactory to your purposes.

(signed) Michael A. Nevins, M.D.

Forced Labor?

15 March 1973

Dear Doctor Davidson:

Physicians should be interested in an item which appeared in the 30 June 1972 issue of the *Newark News*. "The Appellate Division of the Superior Court has upheld the contempt conviction of a lawyer who refused a court assignment (without compensation) to represent an impoverished defendant. The court quoted a precedent stating 'any right to compensation is purely statutory' and upheld the lawyer's $50 fine."

This judicial verdict, based on a previous one reached by abstruse and tortured reasoning, is equally applicable to the medical profession, which could also be conscripted into forced labor, unconstitutional in accordance with Article XIII, Section 1, prohibiting involuntary servitude. Although Canada functions under another form of government, the action taken by the Premier several years ago should be kept in mind.

(signed) Samuel Berg, M.D.

MEETINGS OF MEDICAL INTEREST

This listing has been compiled by the Academy of Medicine of New Jersey. For additional information, including exact time of meetings, write to the society or hospital listed.

May

8 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Hypoglycemic Syndromes

8 **Academy of Medicine of New Jersey**
Paul Kimball Hospital
Lakewood
Management of Renal Failure

9 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Medical Problems in Anesthesiology

9 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Exercise Stress Testing

12-15 **The Medical Society of New Jersey**
Haddon Hall, Atlantic City
Annual Meeting

13 **Academy of Medicine of New Jersey**
Princeton University, Princeton
Heavy Particles in Radiation Therapy

15 **Academy of Medicine of New Jersey**
Mountainside Hospital, Montclair
Thoracic and Cardiovascular Cases

16 **Fair Oaks Hospital and Academy of Medicine of New Jersey**
Fair Oaks Hospital
Summit
Existential Psychiatry

16 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Arterial and Venous Pressure Monitoring

16 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Lymphoproliferative Diseases

22 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Recent Advances in Psychiatry

23 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Medical-Surgical Cardiology Conference

23 **Academy of Medicine of New Jersey and Mountainside Hospital**
Mountainside Hospital, Montclair
Potpourri

23 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Diabetic Neuropathy

24 **Academy of Medicine of New Jersey and New Jersey Radiological Society**
The Hospital Center at Orange
Interesting X-rays of the Month

24 **Academy of Medicine of New Jersey and Fair Oaks Hospital**
Fair Oaks Hospital, Summit
Family Therapy

30 **Academy of Medicine of New Jersey and Bergen Pines County Hospital**
Bergen Pines Hospital, Paramus
Management of Shock

30 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Mortality Conference

30 **Academy of Medicine of New Jersey**
Morristown Memorial Hospital
Morristown
Difficult Diabetic Patient

June

6 **Academy of Medicine of New Jersey**
Rutgers Medical School, Piscataway
Annual Awards Dinner

6 **Academy of Medicine of New Jersey and Fair Oaks Hospital**
Fair Oaks Hospital, Summit
Psychosurgery Today

12 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Cardiology

13 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Lipid Disorders

19 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Hospital, Woodbury
Rheumatic Diseases

19 **Associated Eye Residencies of New Jersey and Academy of Medicine of New Jersey**
Eye Institute of New Jersey
Newark
Neuro-Ophthalmology

20 **Academy of Medicine of New Jersey and the Radiological Society of New Jersey**
The Hospital Center at Orange
Interesting X-rays of the Month

20 **Academy of Medicine of New Jersey**
Rutgers Medical School
New Brunswick
Radiobiology

21 **Academy of Medicine of New Jersey and Fair Oaks Hospital**
Fair Oaks Hospital, Summit
Family Therapy

26 **Academy of Medicine of New Jersey**
Warren Hospital
Phillipsburg
Difficult Diabetic Patient

26 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Memorial Hospital
Woodbury
Topics in Cardiology

28 **Academy of Medicine of New Jersey and Underwood Memorial Hospital**
Underwood Memorial Hospital,
Woodbury
Mortality Conference

Limits on Drug Advertising

W. R. Barclay, M.D., Assistant Vice President of the American Medical Association, has said that the AMA reserves the right to reject drug advertising even if it conforms to FDA regulations. He explained that the AMA had accepted the FDA's authority as to drug advertising when it was promulgated in 1968 "after determining that the regulations would provide adequate screening." But, added Dr. Barclay, the AMA reserved the further right of rejection, not only to drugs but to other products too, "If the proposed advertisement is judged to be in poor taste, if the layout would cause confusion with the editorial content of the journal, or if the advertisement is for a product, service, or book which is not covered by FDA regulations and which does not meet AMA standards of acceptability."

OBITUARIES

Dr. D. John Calabrese

At the age of 65, D. John Calabrese, M.D., a surgeon from Rochelle Park, died on March 16, 1973. He was graduated from Georgetown University's Medical School in 1933 and was a general surgeon who had been affiliated with St. Mary's Hospital in Passaic. Dr. Calabrese was a member of our Bergen County Medical Society and a Fellow of the American Geriatrics Society.

Dr. Arthur T. Colley

His many friends will be saddened by the death, following heart surgery, on February 21, 1973, of Arthur Truman Colley, M.D. Born in 1905, he was a native of Wilkes-Barre and received his MD degree at Jefferson Medical College in 1930. He served as a lieutenant colonel during World War II and then became clinical director of the VA Hospital at Lyons, New Jersey. Dr. Colley became board-certified in neurology and psychiatry and after leaving Lyons, entered private practice in Plainfield.

Dr. William Cooperman

Death came to William Cooperman, M.D., on February 28, 1973, at the age of 73. He was a family doctor of the old school, a 1923 alumnus of the Jefferson Medical College, and had been on the staff of St. Michael's Medical Center in Newark. He was active in organizational work for our Essex County Medical Society.

Dr. Francis Guito

On February 17, 1973, death came to Francis J. Guito, M.D., at the age of 56. He was a 1944 alumnus of Hahnemann and was on the staff of our Jersey Shore Medical Center. Dr. Guito was the Asbury Park School Physician. He was a general practitioner with a special interest and skill in obstetrics. He was active in organizational affairs in our Monmouth County Medical Society.

Dr. Ralph K. Hollinshed*

On March 27, 1973, with the death of Ralph K. Hollinshed, M.D., we lost one of the members of that elite group, the Fellows of The Medical Society of New Jersey—he was the 151st President of MSNJ. Born in 1884, he was a 1908 graduate of the University of Pennsylvania Medical College and settled in Gloucester County to establish a practice in internal medicine. He became board certified in that specialty, concentrating in the field of cardiology, and served the people of Westville and its surrounding community for many years before retirement in 1960. He had long been chief cardiologist at The Cooper Hospital in Camden. In the 1930's Dr. Hollinshed was a member of MSNJ's Board of Trustees, serving two terms as its Chairman. He was elected to the first of the presidential chairs in 1940, and was President in 1943-1944. Dr. Hollinshed was a Fellow of the American College of Physicians and the American Heart Association. He was Secretary of the Gloucester County Medical Society for twelve years, and had one term as its President.

Dr. Regina R. Kesler

Born in 1928, Regina R. Kesler, M.D., died on March 29, 1973. She was a Harvard alumna, class of 1952, and did her graduate work in pediatrics, in which field she became a board diplomate. Dr. Kesler was on the pediatrics staffs at Valley Hospital in Ridgewood and the Hackensack Hospital. She was prominent in the organizational affairs of the New Jersey Section of the American Medical Women's Association.

Dr. Joseph M. Kuder

A 1918 graduate of Harvard Medical School, Joseph M. Kuder, M.D., of Moorestown, New Jersey, died on February 23, 1973, at the age of 82. A retired surgeon, he was long on the

*See editorial comment on Dr. Hollinshed's death, page 357 this issue.

staff of the Burlington Hospital and an active member of the American Society of Abdominal Surgeons. He was involved in civic affairs in Burlington County.

Dr. Gerald I. Kurtz

On March 26, 1973, at the age of 60, Gerald I. Kurtz, M.D., died in his home community of Paterson. He was an otolaryngologist with a special interest and skill in allergy. Dr. Kurtz was on the staffs of St. Joseph's Hospital in Paterson and the Preakness Hospital in Preakness. He was active in the affairs of the Passaic County Medical Society.

Dr. Abraham A. Pansy

Word has just been received of the death, on December 14, 1972, of Abraham A. Pansy, M.D., a prominent Middlesex County family practitioner. For many years, he has been on the staff at St. Peter's Hospital in New Brunswick. He was a 1912 Bellevue graduate and had been the school physician for South River, New Jersey, and served a tour of duty as that town's health officer. Dr. Pansy was 83 years old at the time of his death.

Dr. James W. Parker

The son of a former slave, James W. Parker, M.D., died on February 13, 1973, at the age of 86. He was a family practitioner, associated with most of the hospitals in Monmouth County. He became a member of the New Jersey State Board of Education and was a laureate of our Golden Merit Award in 1965. In 1971, he won a citation from the Monmouth County Chapter of the National Conference of Christians and Jews. At the time of his death, The *Asbury Park Press* commented that, "Dr. Parker rose from humble beginnings to become one of the most highly respected and beloved civic leaders, physicians, and humanitarians in New Jersey."

Dr. Henry Reich

His many friends were saddened on February 11, 1973, with the death that day of Henry Reich, M.D. He was an alumnus of Columbia University's College of Physicians and Surgeons, class of 1924. Dr. Reich was a well-known northern New Jersey surgeon. He was board certified in his field and was Clinical Professor of Surgery at New Jersey College of Medicine and Dentistry in Newark. He had been associated with the Beth Israel Hospital in Newark for many decades.

Dr. Frederick Strauss

One of our state's pioneer radiologists, Frederick Strauss, M.D., died on the last day of February, 1973. He was born in Germany in 1908 and received his M.D. degree at Frankfurt in 1933. He served on the staff of Babies' Hospital, Presbyterian Hospital, Beth Israel Medical Center, and the Eye and Ear Infirmary in Newark, and the East Orange General Hospital. Dr. Strauss was board certified in radiology and was a Fellow of the American College of Radiology.

Dr. Harold M. Stein

On March 2, 1973, Harold M. Stein, M.D., a well-known Passaic County anesthesiologist, died. He had, for many years, been active in civic affairs in Paterson, having served as police surgeon, school physician, and city physician. Born in 1905, he received his MD degree at Maryland in 1926. He was on the staff of Barnert Memorial Hospital and a Fellow of the American College of Anesthesiologists.

Dr. Bernard Wayman

A former Trenton resident, Bernard Wayman, M.D., died at his home in Morrisville, Pennsylvania, on March 13, 1973. He was just seventy years old at the time of his death. Before moving across the Delaware River, where he was associated in a multi-specialty group, he practiced for many years in Trenton. A board certified radiologist, he was formerly on the staff of the St. Francis Hospital in Trenton. Dr. Wayman was a graduate of the Jefferson Medical College, class of 1930.

BOOK REVIEWS

Understanding Laboratory Medicine. Camillo V. Bologna, M.D., Saint Louis, Mosby, 1971. Pp. 259. ($9.80)

This first edition reviews laboratory medicine for the paramedical who must assist the physician in making diagnoses.

Certain classical textbooks of laboratory methods for making clinical diagnosis have been reference sources for medical students for many years. Each physician can recall his favorite used during his basic science years. Dr. Bologna has used these texts to extract and produce a simplified manuscript for use by all students who are learning how to recognize the need for and to interpret the results of basic laboratory testing.

The text is sectioned by systems: the germ layers, blood, bilirubin, metabolism and liver function, urinary tract, hormones, enzyme studies, and cell structure abnormalities. A summary of services performed by the pathologist and a glossary of common terms compete the thesis. Future editions are anticipated with the usual corrections, additions, and deletions.

Mosby and Dr. Bologna have succeeded in printing and publishing a well-structured book.

Harry M. Poppick, M.D.

A World To Care For: The Autobiography of Howard A. Rusk, M.D. New York, Random House, 1972. Pp. 328 ($7.95)

The game that an inscrutable fate often plays with the lives of men has never been better exemplified than in the remarkable career of Howard Rusk. Apparently destined to the tranquil existence of an internist in his home state of Missouri, Rusk found himself, instead, catapulted by World War II into an influential circle of generals and statesmen. In this case, at least, fate proved to be kind for Dr. Rusk was encouraged to apply his youthful vigor and ingenuity to the difficult task of preparing injured and disabled veterans to resume a useful place in society. Fortunately, also, he was associated with the fledgling but already powerful Air Force, untrammelled by the conservatism which hampered the outlook of the older services. With the help of General Arnold and others, Rusk was able to develop centers of rehabilitation throughout the country which proved so successful that the Army and Navy were induced to follow his scheme, albeit somewhat reluctantly.

Howard Rusk would be the last person to claim that the principle of total rehabilitation, even in the expanded form which has made his name famous to thousands of physicians as well as to a multitude of grateful patients, represents an entirely novel concept. Every student of medical history will recall the pleasantly situated sanctuaries of the Asclepiads where a regimen of diet, physical therapy and emotional relaxation anticipated all the essential elements of the Ruskian design. Among his contemporaries Dr. Rusk pays suitable acknowledgment at several points in the book to the contributions of our own Henry Kessler, who, while a Navy captain, was also concerned with the responsibilities of rehabilitation.

Many among us will remember the World War I ditty, "How're you gonna keep them down on the farm after they've seen Paree?" Having seen not only Paree but a great deal of the globe, Howard and his charming wife, Gladys, made the momentous post war decision not to return to St. Louis, but to risk it in New York where his still-maturing theories on rehabilitation could hopefully be put to more practical use. With his vast personal magnetism, Rusk was able to attract the private financial support needed to make a beginning. Later came the association with the Medical Center of New York University and the founding of the Institute, now the major establishment of its kind in America, if not the world. From this great teaching center have gone hundreds of trainees to carry the gospel of rehabilitation to all ends of the earth.

The saga of Dr. Rusk's travels, his interviews with many of the great personalities of his time, the gripping accounts of individual cases of incredible handicaps overcome by equally incredible fortitude, the pervading sense of an intimate concern for the woes of humanity, all combine to make this book one to rekindle the spark in all those who are in any way associated with the healing arts. It should also find a much wider audience among thoughtful persons for whom foresight, courage, and determination still have the power to command respect.

Morris H. Saffron, M.D.

The Truth About Vitamin E. Martin Ebon. New York, Bantam, 1972. Pp. 154. ($1.25)

This paperback calls itself a thoroughgoing, unbiased analysis of Vitamin E. alpha tocopherol. The author describes the history of the vitamin, its pioneers, dietary sources, and clinical usages.

Among the benefits allegedly bestowed are those involving the reproductive function, increased enjoyment of sex life, improvement of anemias, retardation of arteriosclerosis, postponement of aging, correction of protein deficiencies, prevention of phlebitis, dissolution of intravascular clots, treatment of congestive heart failure, heart attack, congenital heart disease, wrinkles, toxemia of pregnancy, menopausal symptoms, emotional ills, and others. The author compares Vitamin E with cortisone, insulin, penicillin, and polio vaccine.

To explain its relative lack of acceptance by the medical profession, Ebon blames the AMA and ". . . the self-consciously deliberate, ritualistic approach in medicine and other scientific disciplines." In addition, he advises his readers piously, "don't doctor yourself." But, "you may well have to educate your own physician . . . you may have to switch doctors."

The approach is slanted and self-serving. The physiology and pathology are medieval. The writing is full of distortions, twisted meanings, and half-truths, all giving off the aroma of quackery. For example, "keeping the blood young, fresh, and vital is the first step toward over-all good health."

The place of Vitamin E in medicine may as yet be uncertain. This book does it no good. It deserves to be on no shelf anywhere. Perhaps the best place would be a warehouse for remaindered works awaiting disintegration and recycling into something useful.

Leo Lewin, M.D.

Vasectomy, Sex, and Parenthood. Norman Fleishman and Peter L. Dixon. Garden City, New York, Doubleday, 1973. Pp. 128 ($5.95)

The authors, both laymen and both vasectomized, have written a book for the layman interested in vasectomy. One chapter describes a first-person experience in the doctor's office during the vasectomy procedure, while the third chapter is written by the wife of one author. She describes the peace of mind which she obtained after her husband's vasectomy, having had four unplanned pregnancies before that. As a result, one can see a very beneficial effect on any wife's emotional state, which probably will be reflected in a happier general relationship with her husband and children, and in a more relaxed sexual atmosphere.

Next comes the best chapter in this short book which deals with answers to frequently asked questions; then, a chapter about how to find the right doctor to do the procedure. This warns about not being satisfied with an initial "no" from a particular doctor. The last four chapters float off into a social discourse on unwanted children and world over-population, using the beggars in India as an illustration. It becomes melodramatic, even for the lay readers who are trying to decide whether vasectomy is the right choice for them.

As a book for the lay reader, it gives a fairly accurate introduction to the subject, followed by a considerable amount of proselytizing for the procedure. Since the first 64 pages are apparently not long enough to justify a book, another 43 pages of social philosophy about over-population have been added with quotations by Senator Alan Cranston and Arthur Godfrey to spruce it up.

Recommend the first part to your patients, but warn them that the average fee is $200-$250, not the $100 stated in the book. But, unless you are thinking about the procedure for yourself, don't bother with the book. You will find it generally unenlightening except for the statistics.

Robert H. Stackpole, M.D.

Pathology of the Cerebral Blood Vessels. William E. Stehbens, M.D. St. Louis, Mosby, 1972. Pp. 661. Illustrated. ($44.50)

Here, indeed, is a comprehensive treatise on diseases of the blood vessels supplying the brain and spinal cord. The author starts with an exquisite review of the anatomy of the cerebral vessels. Choice morsels such as "Phylogenetically, the posterior cerebral artery is a branch of the internal carotid artery. In 30 per cent of brains it remains a major carotid branch on one or both sides, and the divisional branch of the basilar is correspondingly reduced in calibre." This is backed up by statistically oriented references which abound. The unique macroscopic and microscopic features that distinguish the cerebral vessels from extracranial vessels of the same size are detailed with discussion of signicant pathophysiology. The dissertation, with illustrations, on atherosclerosis is replete with factual knowledge and points out how little is known about the basic lesions of this universal disease. For the internist who wishes to know the anatomic facts of thromboses, embolism, hemorrhage (subdural, aneurysmal, intracerebral, due to rare diseases or, often, unexplained) the book is a source for pictorial and statistical reference. The last chapter dealing with epidemiology includes world-wide statistics on death rates for vascular lesions affecting the central nervous system. In this the author calls for improvement in the reliability of clinical diagnosis. So often clinical acumen with all present-day accessory technics leaves the clinician still frustrated by the imperviousness of the skull. This text belongs in every hospital library for residents and attending staff as well as the pathologists for whom it will remain a treasured reference for years to come.

Ira S. Ross, M.D.

Social Change and Human Behavior. G. V. Coelho and E. A. Rubenstein, Editors. Rockville, Maryland, National Institute of Mental Health, 1972. Pp. 237 (Softback—$2.00)

Ability to change is inherent in any evolving species, and we like to think that man is, indeed, an evolving species. This volume is a collection of essays by behavior and social scientists delivered in 1970. It reviews the behavioristic, psychologic, sociologic, and historic aspects of adjustment to change. Unfortunately, many of the authors show a fondness for complex, often obscure, verbal concepts that interfere with the transparency of the writing—examples: communal resymbolization, cognitive control of perceptual process, cantometric and choriometric systems, continuity by simultaneous perceptual encoding, and so on. This is a fine work of academic scholarship, somewhat out of touch with the practical problem of adjusting to change.

L. J. Barone, M.D.

Risks in the Practice of Modern Obstetrics. Silvio Aladjem, M.D., Editor. St. Louis, Mosby, 1972. Pp. 304. Illustrations 74. ($29.50)

During the past ten years, fantastic progress has been made in bringing to clinical obstetrics the latest achievements of modern technology and research. All the more fantastic because the complications and problems of obstetrics are basically the same as they were twenty years ago. It is the new technology and the results of research that have opened our eyes to possibilities that were barely comprehended twenty years ago. Dr. Aladjem has assembled between the covers of this book chapters written by experts dealing with the risks, complications, and problems that must be recognized by every physician who assumes the responsibility for the care of the obstetrical patient. The reader will be stimulated so that his awareness of potential risks will henceforth be more acute and his comprehension deeper and broader. Two chapters deal with the risks associated with the management of therapeutic abortion and infertility in such great detail that the editor should have devoted more valuable space to the six chapters that tried to cover the range of antepartum problems. One chapter would be valuable to the research-oriented physician, and one chapter of medical-legal considerations would be valuable to every physician. One serious criticism significantly diminishes the effectiveness of this excellent book. It is so over-priced that many obstetricians might not be inclined to purchase it. The book is highly readable, with a sufficient number of illustrations, graphs, and charts. There is much valuable information so concisely presented that a reader should have the opportunity to refer readily to this book as certain complications present or recur. Dr. Aladjem is to be congratulated on preparing a book that might serve as the textbook of an obligatory refresher course for every practicing obstetrician today.

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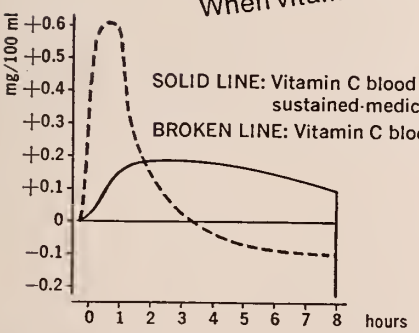


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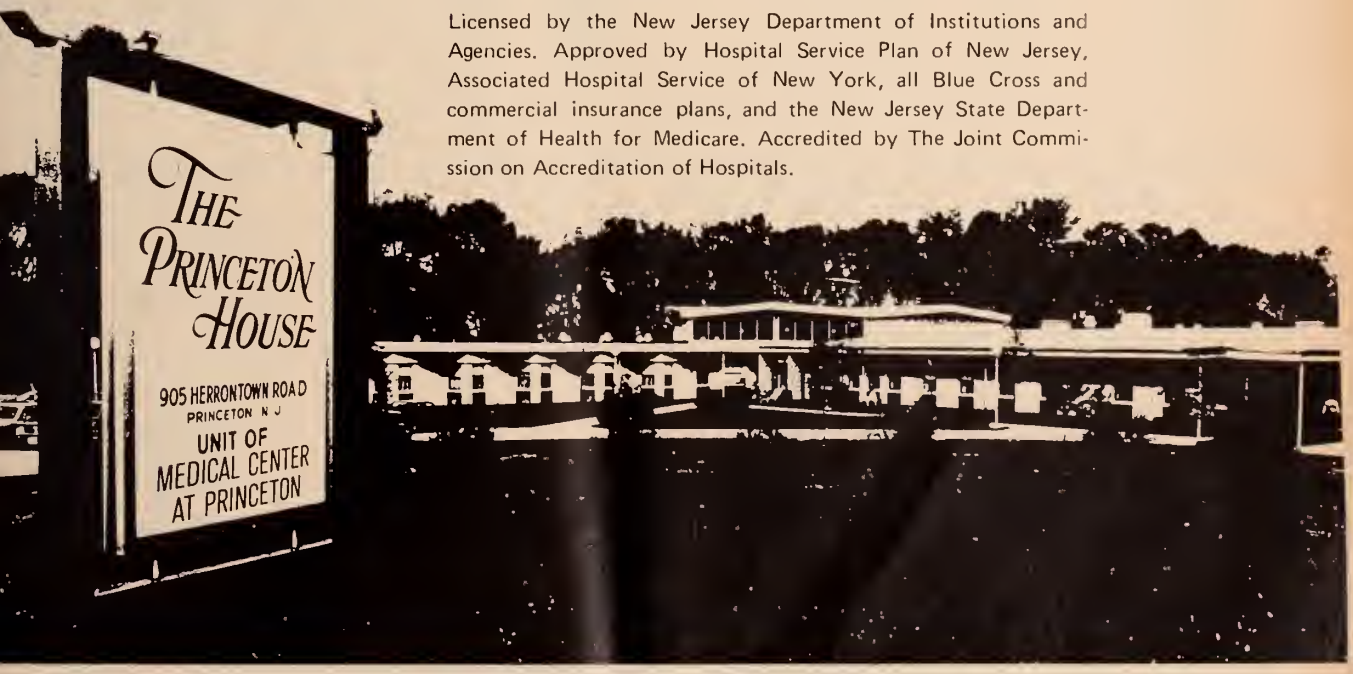
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Before deciding to make Valium (diazepam) part of your treatment plan, check on whether or not the patient is presently taking drugs and, if so, what his response has been. Along with the medical and social history, this information can help you determine initial dosage, the possibility of side effects and the ultimate prospects of success or failure.

While Valium can be a most helpful adjunct to your counseling, it should be prescribed only as long as excessive psychic tension persists and should be discontinued when you decide it has accomplished its therapeutic task. In general, when dosage guidelines are followed, Valium is well tolerated (see Dosage). For convenience it is available in 2-mg, 5-mg and 10-mg tablets.

Drowsiness, fatigue and ataxia have been the most commonly reported side effects.

Until response is determined, patients receiving Valium should be cautioned against engaging in hazardous occupations requiring complete mental alertness, such as driving or operating machinery.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 100 and 500. All strengths also available in Tel-E-Dose® packages of 1000.

Valium®
(diazepam)

To help you manage excessive psychic tension

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Tablets of 100 mg.

Important Note: This drug is not a simple analgesic. Do not administer casually. Carefully evaluate patients before starting treatment and keep them under close supervision. Obtain a detailed history, and complete physical and laboratory examination (complete hemogram, urinalysis, etc.) before prescribing and at frequent intervals thereafter. Carefully select patients, avoiding those responsive to routine measures, contraindicated patients or those who cannot be observed frequently. Warn patients not to exceed recommended dosage. Short-term relief of severe symptoms with the smallest possible dosage is the goal of therapy. Dosage should be taken with meals or a full glass of milk. Patients should discontinue the drug and report immediately any sign of: fever, sore throat, oral lesions (symptoms of blood dyscrasia); dyspepsia, epigastric pain, symptoms of anemia, black or tarry stools or other evidence of intestinal ulceration or hemorrhage, skin reactions, significant weight gain or edema. A one-week trial period is adequate. Discontinue in the absence of a favorable response. Restrict treatment periods to one week in patients over sixty.

Indications: Acute gouty arthritis, rheumatoid arthritis, rheumatoid spondylitis.

Contraindications: Children 14 years or less; senile patients; history or symptoms of G.I. inflammation or ulceration including severe, recurrent or persistent dyspepsia; history or presence of drug allergy; blood dyscrasias; renal, hepatic or cardiac dysfunction; hypertension; thyroid disease; systemic edema; stomatitis and salivary gland enlargement due to the drug; polymyalgia rheumatica and temporal arteritis; patients receiving other potent chemotherapeutic agents, or long-term anticoagulant therapy.

Warnings: Age, weight, dosage, duration of therapy, existence of concomitant diseases, and concurrent potent chemotherapy affect incidence of toxic reactions. Carefully instruct and observe the individual patient, especially the aging (forty years and over) who have increased susceptibility to the toxicity of the drug. Use lowest effective dosage. Weigh initially unpredictable benefits against potential risk of severe, even fatal, reactions. The disease condition itself is unaltered by the drug. Use with caution in first trimester of pregnancy and in nursing mothers. Drug may appear in cord blood and breast milk. Serious, even fatal, blood dyscrasias, including aplastic anemia, may occur suddenly despite regular hemograms, and may become manifest days or weeks after cessation of drug. Any significant change in total white count, relative decrease in granulocytes, appearance of immature forms, or fall in hematocrit should signal immediate cessation of therapy and complete hematologic investigation. Unexplained bleeding involving CNS, adrenals, and G.I. tract has occurred. The drug may potentiate action of insulin, sulfonylurea, and sulfonamide-type agents. Carefully observe patients taking these agents. Nontoxic and toxic goiters and myxedema have been reported (the drug reduces iodine uptake by the thyroid). Blurred vision can be a significant toxic symptom worthy of a complete ophthalmological examination. Swelling of ankles or face in patients under sixty may be prevented by reducing dosage. If edema occurs in patients over sixty, discontinue drug.

Precautions: The following should be accomplished at regular intervals: Careful detailed history for disease being treated and detection of earliest signs of adverse reactions; complete physical examination including check of patient's weight; complete weekly (especially for the aging) or an every two week blood check; pertinent laboratory studies. Caution patients about participating in activity requiring alertness and coordination, as driving a car, etc. Cases of leukemia have been reported in patients with a history of short- and long-term therapy. The majority of these patients were over forty. Remember that arthritic-type pains can be the presenting symptom of leukemia.

Adverse Reactions: This is a potent drug; its misuse can lead to serious results. Review detailed information before beginning therapy. Ulcerative esophagitis, acute and reactivated gastric and duodenal ulcer with perforation and hemorrhage, ulceration and perforation of large bowel, occult G.I. bleeding with anemia, gastritis, epigastric pain, hematemesis, dyspepsia, nausea, vomiting and diarrhea, abdominal distention, agranulocytosis, aplastic anemia, hemolytic anemia, anemia due to blood loss including occult G.I. bleeding, thrombocytopenia, pancytopenia, leukemia, leukopenia, bone marrow depression, sodium and chloride retention, water retention and edema, plasma dilution, respiratory alkalosis, metabolic acidosis, fatal and nonfatal hepatitis (cholestasis may or may not be prominent), petechiae, purpura without thrombocytopenia, toxic pruritus, erythema nodosum, erythema multiforme, Stevens-Johnson syndrome, Lyell's syndrome (toxic necrotizing epidermolysis), exfoliative dermatitis, serum sickness, hypersensitivity angiitis (polyarteritis), anaphylactic shock, urticaria, arthralgia, fever, rashes (all allergic reactions require prompt and permanent withdrawal of the drug), proteinuria, hematuria, oliguria, anuria, renal failure with azotemia, glomerulonephritis, acute tubular necrosis, nephrotic syndrome, bilateral renal cortical necrosis, renal stones, ureteral obstruction with uric acid crystals due to uricosuric action of drug, impaired renal function, cardiac decompensation, hypertension, pericarditis, diffuse interstitial myocarditis with muscle necrosis, perivascular granulomata, aggravation of temporal arteritis in patients with polymyalgia rheumatica, optic neuritis, blurred vision, retinal hemorrhage, toxic amblyopia, retinal detachment, hearing loss, hyperglycemia, thyroid hyperplasia, toxic goiter, association of hyperthyroidism and hypothyroidism (causal relationship not established), agitation, confusional states, lethargy; CNS reactions associated with overdosage, including convulsions, euphoria, psychosis, depression, headaches, hallucinations, giddiness, vertigo, coma, hyperventilation, insomnia; ulcerative stomatitis, salivary gland enlargement.

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For complete details, including dosage, please see full prescribing information.

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TA 9041

Opinion & Dialogue

"Prescription drugs – who should determine the maker?"

Dispenser of Medicine

Clifton J. Latiolais
President
American Pharmaceutical Association



"Too many doctors are indiffe ent to the economic consequences their decisions." So stated a recent issue of *Medical News Report* (December 4, 1972), an independent weekly newsletter published by form AMA Chief Executive F. J. L. Blasingame, M.D.

Doctor, are you indifferent...?

In discussing an anticipated ir crease in Blue Shield rates, Dr. Blas ingame's newsletter had this to say:

"In general, it can be said, MD have given the impression they are not particularly concerned with the increase in cost of health care to th patients...

"True, an MD's training is primarily scientific, but in the real wor of practice, all of his scientific decisions have a price tag, or an econor impact. The economics of health ca beckon the practitioner's attention. Concern for economics of medicine

Maker of Medicine

C. Joseph Stetler
President
Pharmaceutical Manufacturers Association



When the pharmacist recommends that a drug product other th the one ordered be dispensed, the prescriber invariably permits the change when he feels the best inter ests of the patient will be served.

Shortcomings of Pro-Substitution Argument

The fact remains that it is nec sary for the prescriber to know that the change is being contemplated, and to be in a position to consent or demur. Without that opportunity, th unilateral decision of the pharmaci made in the absence of clinical knowledge of the patient, could expose h to needless risks, and in addition, jeopardize the relationship betwee the professions of Pharmacy and Medicine. In my view, there is noth g in the pro-substitution argument th offsets these risks.

The Issue of Drug Knowledge

Substitution advocates claim that the primary justification for changing the rules is the desire to better utilize pharmacists' knowlece about drugs. Yet the pharmacist's task to keep current on the entire field of drug therapy, to some degr puts him at a disadvantage. Most often, a practicing physician will ne expert knowledge of no more than

dvertisement

uld be an obligation of medical
ctice...

"Medical societies ought to con-
t continuing campaigns to point
the substantial savings that could
realized thru deductible insurance
l protection for catastrophic ill-
s. At the very least, they should, in
patients' interest, question the
tics of any insurance organization
t raises health care costs by forc-
policyholders to buy insurance
y may not need or want and prob-
y won't ever use.

"Too many doctors are indiffer-
to the economic consequences of
ir decisions. Too many, for ex-
ple, habitually hospitalize patients
the convenience of the MD. It's
nsense to deny such habits exist...

"Doctors, thru their medical so-
ties, have unhesitatingly appealed
heir patients for support in the
nt against government interference
h the private practice of medicine.
l the public in the past has re-
onded. It's time the American Med-
l Association and state and local
dical societies paid off the debt by
cisive action to hold down the cost
nedical care."

st of Drugs

Insurance rates and hospital
arges are only two factors in health care costs. The cost of drugs—both prescription and nonprescription—is another.

And when it comes to drug costs, the nation's pharmacists *are concerned*. Through their national professional society, the American Pharmaceutical Association, pharmacists are advising the public to use nonprescription medication cautiously and conservatively, and to seek the advice of their pharmacist before selecting or purchasing such drugs.

Outdated Laws

The pharmacist also is aware that when it comes to prescription drugs, often he has an even greater opportunity to reduce the cost to the patient—with no sacrifice in the quality of the medication dispensed. But in many states, outdated and antiquated laws prevent the pharmacist from engaging in drug product selection. "Drug product selection" simply means that the pharmacist functions in the patient's interest by consciously choosing, from the multiple brands available, a low-cost quality brand of the specific drug to be dispensed in response to the physician's prescription order.

Much *misinformation* has been purposely spread by those who stand to gain financially by maintaining high drug costs to the public. An endless stream of propaganda has emanated from the drug industry in an effort to persuade the medical profession that these so-called anti-substitution laws should be retained. And as long as these laws are retained, the drug industry will continue its current marketing practices which contribute unnecessarily to high drug costs to patients. These practices also are inviting government agencies to expand their restrictive controls on physicians and pharmacists.

APhA Efforts

As pharmacists, we are concerned about health care costs. We hope that every physician shares our concern on this vital issue, and will give his personal support to the constructive efforts APhA has undertaken in the interest of all patients.

(For a complete discussion of drug product selection, you are invited to request a free copy of the "White Paper on the Pharmacist's Role in Product Selection" from: American Pharmaceutical Association, 2215 Constitution Avenue, N.W., Washington, D.C. 20037.)

---

30 drugs that he selects to treat the
ajority of conditions encountered in
practice. Moreover, the physi-
n's choice of a specific brand is
sed on his knowledge of the pa-
nt's medical history and current
ndition, and his experiences with
e particular manufacturer's
oduct.

Some substitution proponents
ve argued that the dispensing of a
escription is a simple two-party
nsaction between the pharmacist
d the patient, and that a substitut-
g pharmacist may avoid even a
hnical breach of contract by simply
tifying the patient that he is making
e substitution. I would judge that
v courts would be sympathetic
vard a pharmacist who substituted
hout physician approval and who
dertook a legal defense that seeks
make the patient responsible for
e pharmacist's actions.

duced Prescription Prices?

Substitution advocates are
ggesting to the consumer, and par-
ularly the consumer activist, that
duced prescription prices could
low legalization of substitution.
e have seen absolutely no evidence
justify this claim. To the contrary,
perience in Alberta, Canada, where
bstitution is authorized, suggests the opposite.

Many pharmacists understandably are concerned about the cost of maintaining multiple stocks of similar products. While there is no doubt that inventory costs rise when additional brands are stocked, it would be interesting to know how much they rise, and how many pharmacists actually stock *all* brands — of, say, ampicillin or tetracycline — or how long they keep "slow moving" products on their shelves before they are returned for credit. To ask that the industry eliminate multiple sources is to ask competitors to stop competing.

Drug Substitution—A License for the Unethical

Anti-substitution repeal would favor "corner cutting" pharmacists and manufacturers. For them, free substitution would be not a right, but a license. As an aftermath, it is quite likely that the confidence of both physicians and patients in the profession of Pharmacy would be eroded, as revelations about the unconscionable behavior of an undisciplined few were magnified in the press or in professional circles.

Summary

In short, what the American Pharmaceutical Association advocates as a broad-spectrum panacea looks to us to be not only a minority view (advocacy of substitution is by no means a uniform policy in Pharmacy), but also an extraordinarily costly and ineffective remedy, whose side effects are odious. We believe (1) that an impressive majority of pharmacists prefer to work with Medicine and with industry, for the consumer, and for the general good, (2) that they seek the privilege to substitute when the patient might gain and when the patient's doctor agrees, and (3) that they seek to work for the resolution of genuine grievances openly and professionally.

(For amplification of PMA views, please write for our booklet, "The Medications Physicians Prescribe: Who Shall Determine the Source?" It is available from: Pharmaceutical Manufacturers Association, 1155 Fifteenth Street, N.W., Washington, D.C. 20005.)

Pharmaceutical Manufacturers Association
1155 Fifteenth Street, N.W.
Washington, D.C. 20005

P·M·A

It's about time somebody told the true story of the American Doctor

You'd agree 100% on that. There have been too many of the other kind of story.

You know that the vast majority of American doctors are honest, hardworking, skilled and dedicated human beings who have the interests of their patients at heart.

That's exactly what the AMA is trying to make the public aware of.

One of the many ways the AMA is doing it is through its special communications program.

Perhaps you've seen pages in newspapers and national magazines signed "America's Doctors of Medicine." They're part of this program. It tells the true story of what it takes to become a doctor. The ways American medicine has improved the public's health. And to express the profession's concern about health by providing information which will help every American lead a healthier life.

We're telling this story for you, the American doctor. If we are to continue to represent you effectively, we need your support.

Find out more about what the AMA does for you and the public. Send for the pamphlet, "The AMA and the American Doctor: Sharing a Common Goal." Write: Dept. DW, at the address below.

JOIN US.
WE CAN DO MUCH MORE TOGETHER.

American Medical Association
535 North Dearborn Street/Chicago, Illinois 60610



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- Discard obsolete forms

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EDITORIALS

Matthew E. Boylan, M.D.



The Medical Society of New Jersey is in the strong hands of Matthew Edward Boylan, M.D. He is a 1941 Loyola alumnus and had received his baccalaureate degree from Fordham. He is one of the few New Jersey physicians to hold a certificate in Aviation Medicine. He is now medical director of the Pollak Hospital in Jersey City.

Dr. Boylan has been an all-around medical citizen for many years. He served in all offices of our Hudson County Medical Society; he is our official representative to the New Jersey Home Health Care Program; an Alternate AMA Delegate; Past President of the Norton Memorial Forum; and a Trustee of the Regional Health Planning Council. His good citizenship extends beyond medical activities. He was a Major in the Air Force, earned a Croix de Guerre with Palms, conferred by the French government, and has nine battle stars on his campaign ribbon. We welcome him warmly to the Presidency of the Medical Society. With his background, he will be fighting vigorously in defense of better patient care and the preservation of the rights of our physicians.

Our New Auxiliary President



Marion Abbamonte is an alumna of the school of nursing at the Crouse Irving Hospital in Syracuse, New York. She met her husband while he was a resident. They have four children, one of whom lives with her physician-husband in South Carolina. Mrs. Abbamonte has long had an interest in helping to improve medicine's image. In this connection, she has been active in hospital auxiliary work and has served in many capacities (including president) for the advisory board of the Auxiliary to the Montclair Community Hospital. She has been chairman of public relations for the New Jersey Hospital Auxiliary State Board.

Mrs. Abbamonte's interest in better community relations has extended beyond the medical and hospital fields. She has been active in parent-teacher guild work, in the Girl Scouts, and in mental health organizations. She has been involved, too, in Red Cross organizational work.

She is a great believer in self-education and has involved herself in "continuing education" classes. She has made a significant contribution to the public's acceptance of the physician. Her leadership assures us that the Auxiliary is in firm hands.

A Return to Two-Class Care?

Far-reaching efforts have been made in the last five years to break down the difference between "service" (ward) patients and private patients. In many instances this has included the physical facilities where patients are cared for. When funds have been available, large wards have been renovated into two and four-bed units and in new construction, no units larger than four-bed have been built. More importantly, in many institutions closer supervision of house staff by attendings has been obtained, as evidenced by their more frequent chart notes and more frequent contact with the patient and his family.

Some of these trends have been initiated because of anticipation of National Health Insurance and some because of a decrease in former service patients in certain areas. Community hospitals have been gathered into the teaching hospital fold and in many teaching institutions private patients have been used for instruction. An attractive suggestion in this vein has been made by Anne R. Somers.* She wants to call all teaching patients "participating" patients. This implies that they become involved with their own care in association with the attending staff, house staff, and medical students as *active* participants in that care. This has wide connotations in that it involves the patient as a responsible individual in his own care. He must have some knowledge of his state of health and of actions he can take to improve and maintain it in good condition. It enforces the whole idea of health education and Somers' dictum that good health is the responsibility first and foremost of the patient himself.

No one can downgrade these widespread efforts to provide one class of professional care for all people. In time, it is possible that the lack of amenities in large wards can be eliminated, but many efforts have shown that right now one class of professional care can be given in many hospitals, and within the next few years, probably in all.

It comes, then, as a shock when the wording of the new health bill HR-1, which was signed into law last fall, is looked at closely. The part of the law dealing with teaching hospitals (definition of a teaching hospital is unclear but may include all with a house staff, and certainly includes those with undergraduate medical students) refers to practices existing before 1966, when Medicare was introduced. If, prior to 1966, fee for professional service was not collected, then by a complicated formula involving the average salary of full-time physicians in the institution, the time spent in supervising house staff, and the number of Medicare patients on the unit, a fee will be developed to defray the cost of the attending acting as a supervisor and teacher of house staff. In contrast, the usual fee for professional service will be allowed in the non-teaching setting, or if this practice had been in force in a teaching setting before 1966.

This will, of necessity, lead to a return to the former two classes of care—service and private. It is unfortunate that four or five years of effort directed toward achieving one class of more humane and more economic professional care will be defeated by this bill.

—Reprinted from the *Medical Times*, March 1973.

*Medical Education and the Community: A Consumer Point of View. *The Pharos*. October 1972. p. 149

ORIGINAL ARTICLES

Our new President here stresses the need within our ranks for cooperativeness, compassion, integrity, and dependability.

United We Stand*

Matthew E. Boylan, M.D./Jersey City

Assumption of the Presidency of The Medical Society of New Jersey under any circumstances is a great honor and privilege, calculated to produce in a man conflicting but genuine feelings of pride, humility, anxiety, and dedicated hope. Under the challenging and changeful circumstances which confront us today as individual practitioners and as an organized profession, all those feelings are intensified.

I enter upon my term of office as the 181st President of this venerable and distinguished Society, proud that you have seen fit so to honor me, humbled by the consciousness of the weighty duties that, now, become mine and of the profound trust that you place in me, anxious that I may serve you well and satisfactorily, and sustained by the hope that in this year we shall work together unremittingly and effectively to protect and advance the true good of the people and of our profession. These are the two-fold goals which I promise to pursue and with your help attain, so help me God!

Epitomizing our point of view, I embrace the slogan, "United we stand; divided we fall." Evidence is ample to indicate that the subjugation of the profession of Medicine and the progressive limitation of the freedom of its members is the objective of many who—eager to usurp the credit for the great and good services which physicians supply, and which only physicians can supply—would dictate and control our professional activities, in the name of the good of our patients. Their attitude impugns and denigrates the integrity and humanitarian dedication of physicians past and present, and imperils the welfare of our patients by presumptuously proposing to interfere with the physician's basic right and responsibility to exercise his best professional judgment in the care and treatment of his patients.

Our best defense against those who thus assail us is, in all that as individuals we do, conscientiously and consistently to manifest personal and professional integrity, dependability, and compassionate concern. These are the identifying attributes of every worthy physician. These are the attributes which we must insist that all possess and display. There is no place in our ranks for any one who lacks or abandons these qualities, and we must be vigorous and impartial in dealing with offenders. Let us as worthy physicians stand united in dedication to integrity, dependability, and compassionate concern and we shall honor ourselves in so doing and in turn be honored by those whom we serve.

In our organizational efforts that slogan also must guide us. This is no time for separatism, divisiveness, or debilitating dissensions. Of this fact The Medcal Society of New Jersey is well aware. Universal understanding is the indispensable basis for universal cooperation. To that end we have been emphasizing and

*Inaugural address on the author's induction into the Presidency of The Medical Society of New Jersey. Presented to the House of Delegates, second session, May 13, 1973, Atlantic City.

enlarging upon our communications, both with the public and within the profession. We are progressively increasing our contacts with component societies, through the conference of presidents, special conferences dealing with specific areas of concern, and through the encouraged participation of our elected officers and Trustees in the meetings of component societies. We have accomplished a good deal already, and we shall do more.

The establishment of the New Jersey Foundation for Health Care Evaluation was mandated by the House, meeting in special session last December. The Foundation is well on the way to operational status. It will be an instrument to preserve for physicians, as exclusively competent, the right, through peer review, to review and evaluate the professional work of fellow-physicians. The Foundation will, we hope, ultimately serve as a Professional Standards Review Organization in this State, working in cooperation with the Department of Health, Education, and Welfare, but forestalling the use of non-physicians in the process of reviewing and evaluating professional services under governmental health programs.

We have taken definite steps for certifying our members as satisfactorily pursuing continuing education. This should serve to still the critical voices that brassily allege that physicians do not make consistent efforts to keep abreast of developments in the science and art of Medicine.

We are in the process of revising our membership categories, to give new physicians easier and fuller access to membership. We are carefully weighing the mechanism of the Nominating Committee, and that of choosing and using AMA Delegates and Alternate Delegates, with special concern for the limitation of the duration of terms of service. We are endeavoring to appoint new and younger members to our councils and committees, not with the intent of depriving the Society of the expertise of older members but of intermingling older and younger members to the end that all points of view will be represented and that the Society's decisions and operations will reflect broader understanding and win wider support.

I might say in passing that it is not easy to constitute councils and committees of members who are both able and willing to serve. There is an element of personal sacrifice in committee work, and I urge all our members to face up to the responsibility of their serving the Society, if the Society is satisfactorily to fulfill its obligations to the public and to its members. We need more willing workers in organized Medicine if we are to have the power and the dynamic effectiveness to control our own affairs. Otherwise they will be controlled for us.

Therefore I call upon all our members, in the spirit of "United we stand; divided we fall" to "get with it!" We must for the preservation of the best of the medical profession and of the public welfare have the advantage of the contribution of the best, in brains and conscientious effort, that everyone can supply. I invite you all to more generous and better service, both in your daily professional work and as a member of organized Medicine. With your vigorous help, we can make this another good year.

66 Van Reipen Avenue

SUPPORT THE WIDOWS AND ORPHANS SOCIETY

One way of meeting our responsibility toward the helpless and battered child is here suggested step by step.

How To Set Up a No-Budget Battered Child Program*

Phoebe Hudson, M.D./Hackensack

In the past few years, a sound basic structure for handling abused and neglected children has been set up in Bergen County. This was done with no budget. If one reads *The Battered Child*† by Kempe and Helfer and acknowledges that a generous budget produced for them an excellent program, it is more than slightly discouraging to turn to one's own community and find the Bureau of Children's Services, Prosecutor's Office, and Medical Society all have budget problems, are understaffed, and are not exactly itching to take part in a program dealing with kids who not only have no voice, no vote, no money, and no resources, but who don't even have parents who will go to bat for them.

In Bergen County the problem was extremely discouraging. Cases were poorly reported, the judges were having to deal with inadequate information and had no professional testimony. The glaring fault was the absence of a lawyer to represent the child even though OEO provided one for the parents. The baby was without an advocate.

The situation was completely intolerable. What happened was so simple, so easy, and worked so well that the description which follows hopefully will assist other communities to set up a program for these unfortunate children and parents.

The Director of the Bureau of Children's Services, a lawyer-social worker from the Mental Health Association, a new and willing county prosecutor, and a pediatrician got together to discuss the situation. Admittedly it was a depressing outlook, but each person simply assumed that something was going to be accomplished; something *had* to be done. A review of the problem was first made. This showed clearly that in every case responsibilities were not being borne:

1. The public was not aware of the problem.

2. Doctors were not reporting it.

3. The police and courts were at loss due to lack of authority and professional support.

4. The BCS was inadequate in resources, court situations, and legal rights.

It was obvious that too few cases were being reported. When they *were* reported, legal and professional help were lacking and inadequate follow-up was provided. Rather quickly, therefore, it was decided to approach the problem from all angles.

1. With the assistance of two interested reporters from the county newspaper, a series of articles was presented with smashing results. The public began to stir. A year or so later, a forum by the same newspaper once again brought the subject into the general public eye.

2. Doctors received a pamphlet—see this *Journal*, 69:551 (June 1972)—surveying the problem, suggesting what they should do, and clearly outlining routines for reporting. This was distributed to about 700 M.D.'s and D.O.'s in our county. The Medical Society

*From the Child Evaluation Center, Hackensack (NJ) Hospital.

†University of Chicago Press, 1968.

furnished the paper and the prosecutor's office printed it. They were distributed to the Community Hospitals and put into the doctors' boxes to avoid mailing costs. Then a physician's committee with a representative from each hospital was formed. Each was to return to his hospital and inform the emergency room personnel, pediatric, orthopedic, and any other involved department, of the problems and routines. A small additional program was initiated which has proved to be useful in case finding. A card on each child under the age of 3 seen in any emergency room for trauma or neglect was sent to the Bureau of Children's Services. If two cards arrived on the same child—especially if from different hospitals—a home visit was made by a worker.

3. Specific routines were set up by the prosecutor for all police and circularized. The doctors too, received a copy. The involved judges were told and they and the prosecutor's office agreed to let the doctor testify within 15 minutes after appearance in court.

4. The Bureau of Children's Services was promised a lawyer from the prosecutor's office to represent the child.

At this point a new reporting law was passed —mainly thanks to Mrs. Fenwick, the Assemblywoman from Somerset County. This stated that *anyone must* report suspicion of abuse and such person was protected from libel action. This made the program much more meaningful to the general public, permitted more active publicity—to the elementary schools for example, where about 30 per cent of the children are to be found—and also took a bit of the onus off the doctor who up to that point had had full responsibility for reporting. A brief presentation of slides, reviewing the law and reporting technics and pictures of typical injuries, was assembled and shown whenever the opportunity arose. The program was by no means an instant success. The reluctance of everyone to believe that a parent could injure or kill his child is the greatest limitation.

No one is properly fulfilling his responsibilities. The public is not active enough. The doctors refuse to report and their ingrained horror and disgust at court appearances is a tremendous and not unjustified difficulty. The police try but are often bound by legal limitations and likewise the Bureau of Children's Services is painfully limited by the law, aside from lack of staff, due to unremitting budget cuts. Nevertheless, a beginning has been made. A plan is set up so that anyone wanting to report can be told what to do. The general feeling of the early committee and the medical committee is that there must be a constant publicity campaign to keep the problem alive and to maintain education of all involved. Best of all, the Medical Society is active and each individual agency has a key person to use as a reference.

A new law defining the whole plan for management of *all* problems of children will hopefully be in effect soon, once again due to the efforts of Mrs. Fenwick. This should provide more facilities for handling the children and their parents.

In summary, by outlining the development of a program for the battered child in Bergen County, it is hoped that other counties will, with variations of their own, be encouraged to initiate such programs.

Thanks to Mrs. Dorothy Webb, Bureau of Children's Services; Mike Woodman, Mental Health Society; Alfred Genton, Assistant County Prosecutor; and George James and Mark Stuart of the Bergen Evening Record.

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Prophylactically, the ointment may be used to prevent bacterial contamination in burns, skin grafts, incisions, and other clean lesions. For abrasions, minor cuts and wounds accidentally incurred, its use may prevent the development of infection and permit wound healing.

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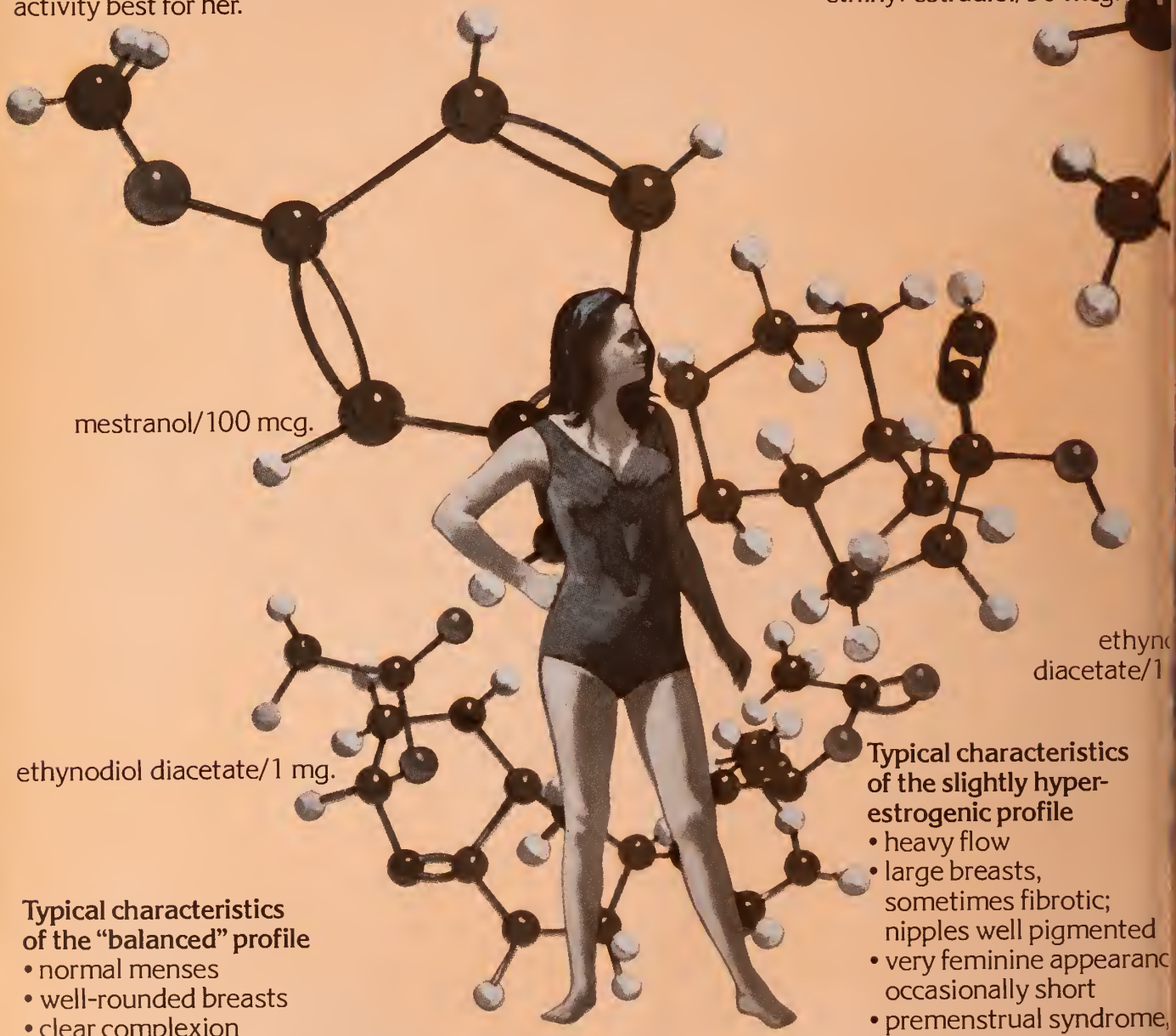
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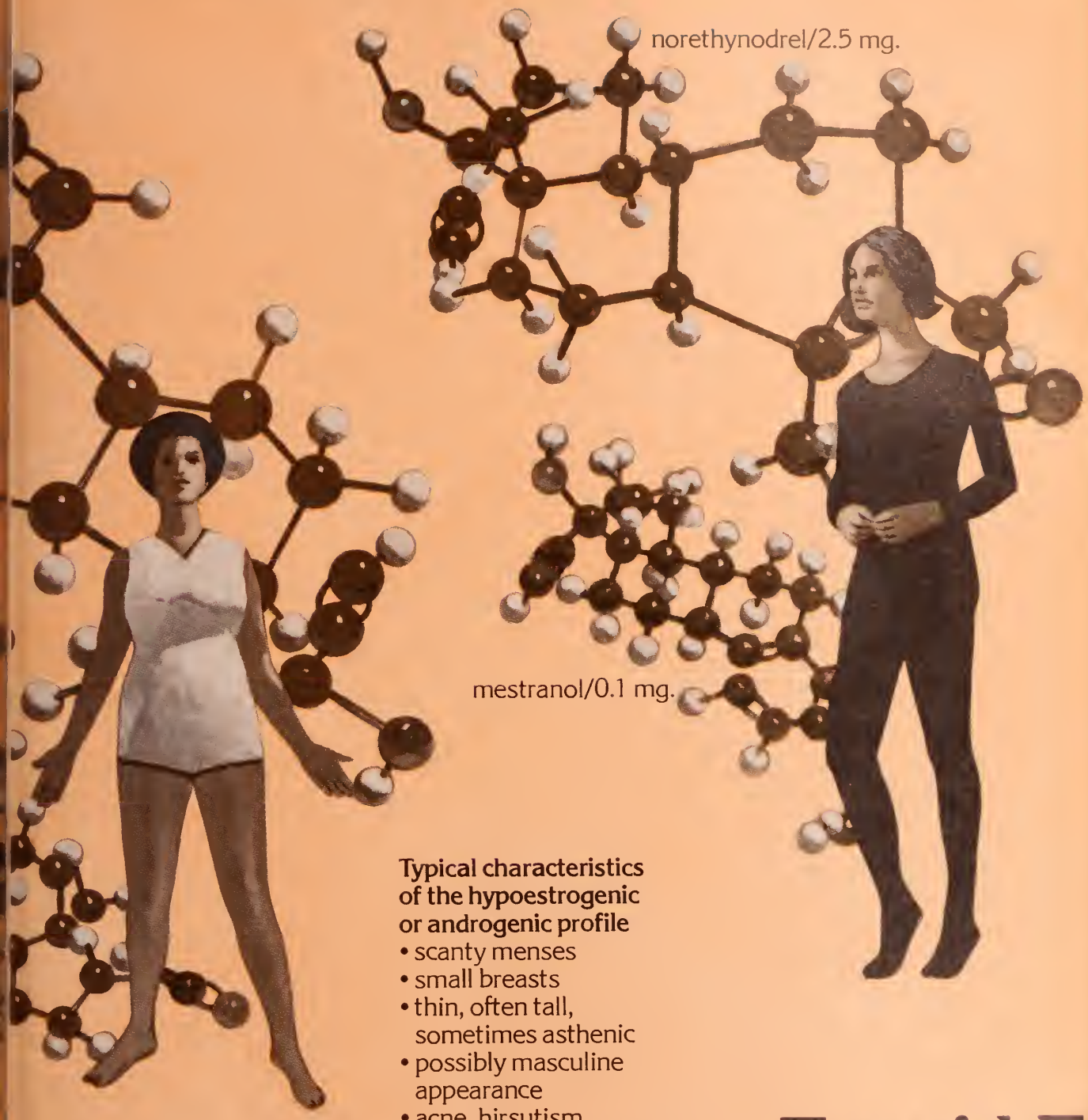
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This formulation, which h less estrogenic activity an a moderate progestogen dominance, may be a goo beginning.

For brief summary of prescribing information, please see next page.



Typical characteristics of the hypoestrogenic or androgenic profile

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Each pink tablet in Ovulen-28® and Demulen-28® is a placebo, containing no active ingredients.

Actions—Ovulen and Demulen act to prevent ovulation by inhibiting the output of gonadotropins from the pituitary gland. Ovulen and Demulen depress the output of both the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH).

Special note—Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication—Ovulen and Demulen are indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain[1,3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Ovulen and Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Ovulen or Demulen. Therefore, if such tests are abnormal in a patient taking Ovulen or Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations pre-existing uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Ovulen or Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Ovulen or Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Ovulen or Demulen may mask the onset of the climacteric. The pathologist should be advised of Ovulen or Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

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Indication—Enovid-E is indicated for oral contraception.

The *Special Note, Contraindications, Warnings, Precautions* and *Adverse Reactions* listed above for Ovulen and Demulen are applicable to Enovid-E and should be observed when prescribing Enovid-E.

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Where "The Pill" Began

Lesions of the "minor" salivary glands are not always so minor and must be taken seriously.

Tumors of Minor Salivary Glands*

A Study of 23 Cases

Adel Sorial, M.D./East Orange

The minor salivary glands of man occur throughout the oral cavity and pharynx. Additional histologically identical glandular elements are demonstrable in the nose, paranasal sinuses, larynx, and trachea. Except for papillary cystadenoma lymphomatosum, all tumors of the minor salivary glands correspond in type to those known to occur in the major salivary glands. Comparative statistics reveal a higher ratio of malignant tumors especially of mucoepidermoid or adenoid cystic types in the minor salivary glands.

Our material consisted of 23 cases, surgically treated and histologically confirmed tumors of minor salivary glands, seen at the head and neck service of Black-Stevenson Clinic of The United Hospitals Medical Center of Newark in the 10 years between 1960 and 1970. All specimens were re-examined histologically and then reclassified according to Foote and Frazell Classification. Their distribution according to site and histologic types is given in Table I: *Site:* 17 occurred in palate, 2 upper lip, 2 floor of mouth, 2 base of tongue. Table II shows the relation to age and sex: *Age:* Benign—22-63—average 39; Malignant—30-77—average 45-50. *Sex:* slightly more predominant in males to females 13:10; most reported cases indicate fairly even distribution.

Table I

Classification and sites of origin of 23 cases of minor salivary gland tumors.

Type	*Total Number*	*Palate*	*Lip*	*Floor of Mouth*	*Base of Tongue*
Benign mixed	11	9	2	—	—
Malignant mixed	4	4	—	—	—
Adenoid cystic	3	2	—	—	1
Mucoepidermoid	3	1	—	2	—
Adenocarcinoma	2	1	—	—	1
	23	17	2	2	2

Table II

Clinical Data on 23 intra-oral salivary gland tumors

Type	*Number*	*Age Range*	*Average Age*	*Sex M*	*F*
Benign mixed	11	22-63	39	7	4
Malignant mixed	4	31-63	51	2	2
Adenoid cystic	3	42-77	51	3	—
Mucoepidermoid	3	30-58	45	—	3
Adenocarcinoma	2	36-72	54	1	1
	23	22-77	48	13	10

There are rarely any symptoms. The commonest was a painless lump, not ulcerated even in malignant ones, usually diagnosed by dentist or oral surgeon. It is difficult to be certain of the duration of these lesions. In accessible regions such as lips, the tumors were small because they are detected early. It is a curious fact that even sizeable growths in the mouth are usually unnoticed by the patient. Figure 1 shows a larger tumor of the palate, tonsil and oropharynx in a 37-year old man, diagnosed during the annual physical examination.

Only one patient complained of pain or sensitivity in the region of the tumor and this turned out to be adenoid cystic carcinoma.

*Presented at the annual meeting of New Jersey Academy of Ophthalmology and Otolaryngology, November 10, 1971, Newark. Dr. Sorial is Resident in Otolaryngology, United Hospitals Medical Center, Newark.



Figure 1—Large tumor of palate, tonsil, and oropharynx.

Classification and Analysis of 23 Cases

1. *Benign Mixed:* These included 11 cases, 9 in palate, 2 upper lip. Those in palate were at junction of the hard and soft palate.

They are classical examples of pleomorphic adenoma in which epithelial elements are merging with one or more stomal elements. The myxoid stroma is thought to be due to degenerative changes in secretions of the epithelial cells.

All patients were treated by surgery, three were lost to follow up, two died from other causes, six are alive and well with no sign of recurrence.

2. *Malignant mixed* included four cases all in palate. There were no metastasis to regional nodes or elsewhere. All were treated by surgery, one was lost to follow up, three are alive with no recurrence after more than seven years. One case was operated on twice because of false negative biopsy for malignancy. The second operation was felt necessary to have wider margin of resection.

3. *Mucoepidermoid carcinoma* is formed of squamous cells in masses together with mucus-containing cells. The three cases in this series are all females, two in floor of mouth, one in palate. All were low grade malignancy. One lesion of floor of mouth, developed metastasis in the regional nodes. All were treated by surgery in form of wide resection and marginal mandibulectomy, neck dissection was done in the case with palpable nodes in neck. One case was lost to follow up, the other two cases are alive, lesion of floor of mouth nine years, that of palate and alveolus six years. (Figure 2)

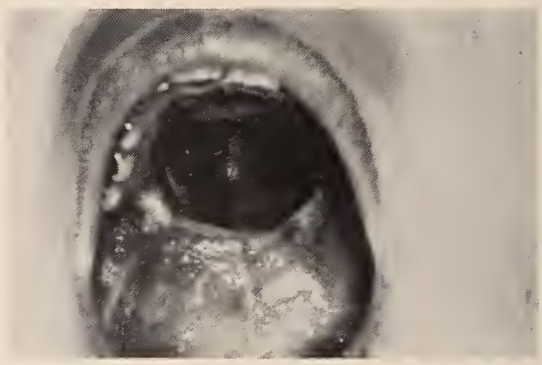


Figure 2—Defect created by resection of palate and part of alveolus on left.

4. *Adenoid cystic carcinoma* (*cylindroma*): This classification includes three cases, two in palate, one base of tongue. The tumor is formed of darkly-staining uniform cells in masses in which there are rounded acellular areas containing homogenous material. Histologically, the cells look benign, but these tumors do recur locally, metastasize to regional lymph nodes, and to lungs, bones, and elsewhere. The three cases in this series were all treated by wide surgical resection. Two were in the palate, one was lost to follow up two years after operation, the other case (45-year old male) recurred locally after three years from wide resection. He received radiotherapy with good palliation for pain, but six months later he developed metastasis into base of skull, regional nodes, mandible, vertebra, and lungs. The patient died four years after the original operation.

Third case in base of tongue was in a 42-year old male, treated originally by radical local excision; three years later it recurred at original site. Further surgery in form of neck dissection and lateral pharyngotomy was performed. Six months later he had a lateral rectus palsy. The tumor disseminated to the base of skull and chest. This patient died nine months after second operation.

Obviously these are dangerous tumors with insidious course, behave much worse than the histologic picture would lead one to believe.

5. *Adenocarcinoma*: We had only two cases, well differentiated—one in palate was treated by surgery. This patient was alive for two years and then lost for follow up. The other was a lesion of base of tongue in 36-year old male. He was treated with combined therapy, surgery in form of neck dissection with resection of jaw and base of tongue. He is still alive four years after operation.

Methods of Treatment

Benign mixed tumors of these regions can be removed by simple wide excision. Those of the palate can be removed without perforating the palate or entering the nasal cavity. Healing by granulation is satisfactory and reasonably rapid, eliminating the necessity for skin grafting.

All malignant lesions of the palate, however (including malignant mixed and mucoepidermoid) should have the benefit of wide resection into the nasal cavity, including the floor and wall of maxillary sinus, nasal septum if necessary as well as removal of adjacent teeth. If the antrum is entered, all lining mucosa must be removed (in its entirety) as this tends to form polypoid membrane later on.

Adenoid cystic carcinoma dominated the local recurrence. They need a generous margin because of their propensity to invade bone and spread laterally without symptoms. X-ray evidence of bone invasion is always less than the actual extent of the tumor. Bleeding is usually severe so that the operation must be carefully planned and performed quickly to minimize blood loss.

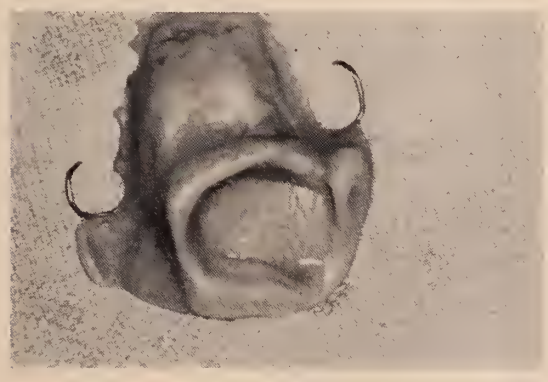


Figure 3—Prosthesis constructed to close the defect shown in Figure 2.

An obturator with or without teeth (Figure 3) will be used at a later date when the shape of the defect is stabilized particularly when part of the soft palate has been resected. A skillful and experienced prosthodontist is essential in the successful rehabilitation of these patients.

Larger lesions invading the pterygoid space or orbit and those perforating the alveolar process into the buccal gutter will require a more radical approach, usually a Weber-Ferguson incision with resection of the maxilla and exenteration of the orbit if its floor is invaded. Floor of mouth lesions need a segmental or marginal mandibulectomy which will afford an excellent means of access with or without neck dissection. Base of tongue and hypopharyngeal lesions may be resected via a transhyoid or lateral pharyngotomy approach.

Irradiation did not contribute to cure of the patients in this series. It should never be used in treatment of benign salivary gland lesions and its efficiency in therapy of malignant tumors of such origin as a primary modality is open to serious question. But it has been proven to be an excellent instrument for palliation in adenoid cystic carcinoma.

Comment

Benign mixed tumors as well as malignant mixed and mucoepidermoid (provided they are properly handled) are not likely to recur. Our two carcinomas were not troublesome from the standpoint of metastasis although high grade malignant mucoepidermoid are capable of metastasis.

Such optimism cannot be maintained towards adenoid cystic. These are insidiously slow growing, invade bone, recur locally and metastasize widely to regional nodes, brain, lungs, bones, and elsewhere, if uncontrolled in the initial definitive attack. They are also

prone to spread *via* perineural lymphatic pain so one must plan the most extensive operation possible.

The adenocarcinomas form a more anaplastic rare group, display all the malignant attributes common to these tumors elsewhere in the body. (Table III)

Table III

Results after 5 years or more in 23 patients with minor salivary gland tumors.

Type	*Number*	*Lost For Follow-up*	*Dead other Cause*	*Dead of Disease*	*Alive 3 Years or more*
Benign mixed	11	3	2	—	6
Malignant mixed	4	—	1	—	3
Adenoid cystic	3	1	—	2	—
Mucoepidermoid	3	1	—	—	2
Adenocarcinoma	2	—	1	—	1
	23	5	4	2	12

Table IV

Comparative Incidence of Malignancy

Published Series		*Number of Cases*	*Percent*
Ahlom	1935	60	67
Ringertz	1938	37	73
Hoback	1949	33	33
Smith *et al.*	1954	32	75
Bhaskar & Weinmann	1955	23	35
Hanison	1956	82	65
Vellios & Shafer	1959	54	54
Edwards	1960	23	39
Fine *et al.*	1960	79	47
Chaudry *et al.*	1961	94	54
Forsslund & Lidholm	1963	13	31
Farago & Holezinger	1965	17	35
Hormia	1965	22	0
Bardwil *et al.*	1966	100	87
Stuteville & Corley	1967	80	90
Bergman	1969	46	13
Present Series		23	52

Table IV shows incidence of malignancy in these tumors reported in the literature. In this series, 52 per cent were malignant. The conclusion is that an unusually high ratio of malignancy occurs in tumors of minor salivary glands. The clinician should prepare himself to deal in the majority of cases with diagnosis of carcinoma and should orient his thinking on these lines. One must be on guard when inspecting what seems like an innocent tumor in the mouth. It is desirable to establish a microscopic diagnosis before planning treatment. Needle biopsy produced enough material in 80 per cent of these cases to reach a diagnosis. If unsuccessful, carefully planned biopsy should be performed.

It is a common practice for oral surgeons to attempt removal of these lesions without prior histologic identification. Two-thirds of these cases referred for definitive surgery either had been treated without biopsy or have had inadequate excision to establish a diagnosis. Figure 4 shows a mucoepidermoid carcinoma of palate inadequately excised by oral surgeon without prior biopsy.

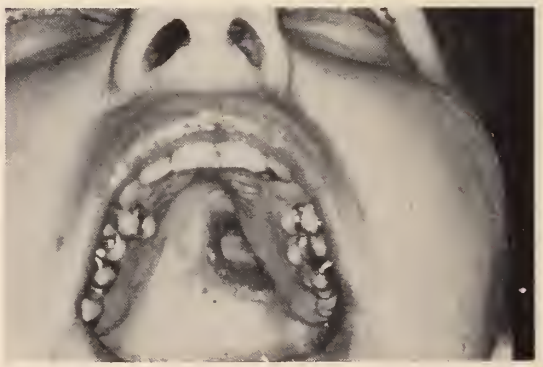


Figure 4—Mucoepidermoid carcinoma of palate inadequately excised by oral surgeon without prior biopsy.

One should avoid ulcerated areas if present and take the specimen from the central portion of the tumor so that the edges are not violated. Excisional biopsy with suture of the wound is unacceptable since it obliterates the boundaries of the lesion if re-excision becomes necessary.

These tumors are highly individualistic and prognosis depends on histopathology.

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51 East Park Street

Human Subjects in Medical Research

The use of human subjects in medical research is essential for the benefit of society despite the fact that it will place some participants at a calculated disadvantage, the American Medical Association told Congress.

The AMA comments were made to Senator Kennedy's Senate health subcommittee in hearings on the subject of human experimentation and if a need exists for federal legislation to forestall abuses.

William R. Barclay, M.D., Assistant Vice-President of the AMA, told the senators that, "We are constantly seeking new means to improve the quality and length of life. The evolution of sound medical practice through the years has reduced the incidence of pain and has done much to advance the cause of human dignity. These procedures, however, today as always, require the weighing of risk against benefit at every level of professional discretion. There is a certain degree of risk attendant to any medical procedure. But if we are to continue to improve our high standards of patient care, we must maintain our initiatives in biomedical research. The accomplishments of modern medical practice testify to the merits of continued research. Such advances are hard won, but the benefits are beyond question.

"Medicine as a science must conduct experimentation if it is to progress rather than stagnate. Experimentation is an essential principle of all sciences, be they biological or physical. Scientific experiments are conducted both to test new hypotheses and to re-examine the validity of accepted hypotheses.

"A medical experiment with human subjects is sometimes referred to as a clinical trial. As such it should be a test of a reasonable hypothesis based on sound laboratory data. It should not be a random groping for information. A well-designed clinical trial has elements in its design which assure that it will be a useful and a justifiable undertaking.

". . . A human experiment establishes a set of circumstances which will place some of the participants at a calculated disadvantage. Generally a trial is established to answer the question: Is treatment A better than treatment B? No definitive answer to this question can be obtained until the test is conducted over an adequate period of time and sufficient data have been gathered by which to measure the relative response of the subject.

". . . Through the process of clinical investigation, drugs and procedures become available for widespread usage in patient care.

". . . We note that it is the Committee's hope that these hearings will encourage continued support of and advancement of biomedical research. If we are to continue to increase our knowledge and to improve medical care, research using human subjects is essential."

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Fear of memory loss after electric shock therapy is not really a reason for not administering this treatment.

Memory Change Following EST and Drug Treated Depression

Donald I. Templer, Ph.D., S. B. Penick, M.D., and Nancy Buonpane, R.N./Belle Mead

Purpose of this research is to compare the admission to discharge memory change of those depressed middle-aged and elderly patients who are treated with electroshock therapy (EST) with those who are treated without EST. It has long been recognized that EST causes temporary memory impairment. Many patients being considered for EST want to know how their memory will be at the end of their hospitalization when they resume their normal occupational and social roles.

Subjects were 9 male and 20 female psychiatric patients from the age of 48 to 79, with a median age of 71. Each had a diagnosis of depressive neurosis, involutional melancholia, manic-depressive, depressed, or psychotic depressive reaction. They were administered (Administration A) the Benton Visual Retention Test within two days after their admission to The Carrier Clinic and again within two days of their discharge. For every other subject Form C was administered upon admission and Form D upon discharge. The reverse procedure was employed for the other half of the subjects. The Benton was used because previous research indicated that it taps the sort of memory functioning that is of common clinical concern.[1] Seventeen patients received from six to ten EST with a median number of eight. Twelve of the patients received no EST and were instead treated with tricyclic antidepressant drugs. The median length of hospitalization was 29 days. For the EST patients, the time from last EST to discharge (Benton administration) ranged from three to twenty-six days with a median of seven days.

As indicated from Table I, from admission to discharge, the number of correct Benton

TABLE I

Change in Benton Score as a Function of Treatment

	EST Patients	Non-EST Patients
Benton Increase	10	4
Benton the Same	4	1
Benton Decrease	3	7

Scores of ten EST patients improved; the scores of four EST patients remained the same; and the scores of three EST patients declined. For the non-EST patients, four Benton scores improved, one remained the same, and seven declined. Fourteen EST patients had increased or the same Benton score and three had decreased scores; five of the non-EST patients had improved or the same scores; and seven had decreased scores. The mean change from admission to discharge was .94 for the EST patients and −.45 for the non-EST patients.

Since choice of treatment was determined clinically rather than by experimental design, it is possible that the pre-treatment characteristics of EST and non-EST patients may differ. However, nine EST and seven non-EST patients received Zung Self-Rating Scales at the time of the first Benton adminis-

tration. The mean Zung scores of the EST and non-EST patients were quite similar, 50.9 and 47.7 respectively. It would, therefore, appear that the groups did not differ greatly in degree of pre-treatment depression.

The findings of this study seem to indicate that prospective EST patients can be told that their memory will probably be as good or better when they leave the hospital than when they enter. Their memory will probably be as good as it would be if they are treated only with drugs and without EST.

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Carrier Clinic Foundation

Criminal Sanctions Against Marihuana

The legalized use of marihuana would appear a long way off despite reports showing growing support for "decriminalization." Only continued increase of marihuana smoking over a number of years and a new generation of lawmakers could bring about climate for legalization, congressional experts predict. However, scaling penalties further down, especially for use, is a real possibility. The National Commission on Marihuana and Drug Abuse is reported ready to recommend dropping all criminal sanctions against private use, but this falls short of legalization, as sellers and importers would continue to be subject to criminal action.

The National Institute of Mental Health yearly report to congress on health aspects of marihuana found relatively little evidence of serious ill effects with acute reactions apparently rare. Current information does not justify making marihuana legal, according to NIMH Director Bertram Brown, M.D., who nevertheless criticizes harsh penalties. Preliminary survey findings that chronic users of the drug appear to be healthy surprised the researchers. However, its effect on emotionally unstable teen-agers can be a serious retarding development, causing breakdowns.

From Washington, D.C. office of AMA Release dated February 29, 1972.

Proposed Cancer Control Legislation

House opposition to a Senate-passed cancer bill that would tend to fragment the National Institutes of Health has touched off a debate in Washington as to how best to organize a multimillion dollar campaign to conquer the disease. The American Cancer Society has sponsored a number of full-page advertisements about the nation, calling for popular support of the "put-a-man-on-the-moon" approach to the conquest of cancer as contained in the Senate bill.

Florida's Congressman Paul Rogers, chairman of the House Interstate and Foreign Commerce Subcommittee on health, and himself the author of a "cancer attack" bill that would beef-up cancer research but keep it within the framework of NIH, immediately branded the Cancer Society advertisements as "an attempt to bring the issue of finding a cure for cancer into a political setting."

It is reported here that the Cancer Society advertisements are just the opening salvo in a "big money" grass roots campaign to pressure the Congress into passage of the Kennedy-Administration backed "Conquest of Cancer" bill. A month ago the AMA's testimony on this bill challenged the wisdom of separating cancer research from the mainstream of biomedical research now carried on by the NIH.

In determining the mechanism of upper gastrointestinal bleeding, celiac angiography may have distinct diagnostic value

Gastrointestinal Bleeding and Hepatoma*

Diagnostic Value of Celiac Angiography

L. Donald Weinstein, M.D., *et al.*
Hackensack

Selective visceral angiography is a useful diagnostic method for determining the site, and occasionally the nature, of gastrointestinal bleeding problems.[1] It is also one of the best ways available for identifying the presence and nature of hepatic neoplasms.[2] The following case presentation demonstrates the value of celiac angiography in determining the pathogenesis of gastrointestinal bleeding in a patient with hepatocarcinoma.

A forty-two year old female was admitted with massive upper gastrointestinal bleeding. For three months, she had suffered from intermittent upper abdominal pain, with anorexia and a fifteen-pound weight loss. On the morning of admission, she had vomited copious amounts of dark red blood, followed by the passage of tarry stools. There was no history of jaundice, fever, abdominal distension, edema, pyrosis, ingestion of salicylates, or excessive intake of alcohol. No past history of suspected liver disease, anemia, or gastrointestinal bleeding was elicited. The patient was treated with "home remedies" for "worms" as a child in Jamaica in the Carribean, but she denied ingestion of "bush teas" (Senneccia alkaloids). Previous surgery was limited to pelvic exploration at age seventeen. No transfusions were received.

She was an acutely ill, middle-aged female with no cutaneous stigmata of chronic liver disease. Temperature was 99, pulse 110 and regular, and blood pressure was 90/70. No adenopathy, clubbing, cyanosis, or edema was observed. Lungs were clear to percussion and auscultation. Cardiac examination was normal. The abdomen was moderately distended without shifting dullness or a fluid wave. The liver was markedly enlarged with a tender firm edge palpable 8 centimeters below the xiphoid. No discrete nodules were noted. A distinct venous bruit was audible over the entire right lobe of the liver with a palpable thrill. No hepatic friction rub was noted. The spleen was not enlarged to percussion or palpation. The abdominal venous pattern was not pronounced. Pelvic and rectal examinations were unremarkable. Neurologic examination was within normal limits.

Hematocrit on admission was 28 per cent; white blood count was 4,600 with 70 per cent segmented forms, 26 per cent lymphocytes, and 4 per cent eosinophils; platelet count was 212,000. Blood glucose was 77 and BUN 16. Total serum bilirubin was 0.8 per cent with direct bilirubin 0.4 mg. per cent; serum alkaline phosphatase was 16 Bodansky units; serum glutamic oxaloacetic transaminase was 32 Karmen units; cephalin flocculation and thymol turbidity were within normal units.

Serum albumin was 2.9 gm/100 ml. and globulin 3.9 gm/100 ml. Prothrombin time was 15 seconds (control 11 seconds). Serum for Feto-globulin† was obtained on admission and subsequently reported as positive. Urinalysis revealed trace protein and was negative for glucose, bile, cellular elements, or casts. Stool specimen test with acid-guaiac gave a strongly positive result. Chest x-ray and electrocardiogram were normal.

Emergency upper gastrointestinal series revealed large varices involving the lower third of the esophagus and the gastric fundus. The remainder of the stomach, duodenal bulb, and loop appeared normal. The liver shadow was grossly enlarged and the splenic shadow appeared minimally enlarged. Esophagoscopy confirmed the presence of extensive esophageal varices, with fresh bleeding noted from a prominent varix. Aqua-Mephyton® and transfusions of blood were given and no further evidence of bleeding was noted for 48 hours.

On the third hospital day, a liver scan was done using Technecium® 99. This revealed generalized enlargement of the liver with markedly decreased activity over the right lobe and increased splenic uptake. On the fourth hospital day, a selective celiac angiogram was done using the Seldinger technic. Multiple tumor vessels were seen occupying the majority of the right lobe of the liver (Figure 1, A.). Considerable shunting between the hepatic artery branches and the portal venous system was demonstrated (Figure 1, B.). Filling defects obstructing the portal vein were seen and thought to represent tumor thrombus (Figure 1, B.). Reversal of flow into the mesenteric venous system was demonstrated (Figure 2, B.). Gastric varices were further shown on the delayed (venous phase) films (Figure 2, A.).

*From the Hackensack Hospital, where Dr. Weinstein is Chief of Gastroenterology. Co-authors are Leroy Kotzen, M.D., attending in Radiology, Arthur W. Chaney, Jr. M.D., assistant attending in Medicine, and Norman E. Davis, M.D., resident in Pathology.

†Leary Laboratory, 43 Bay State Road, Boston, Mass.

On the sixth day, increasing abdominal distension, shifting dullness, and a fluid wave were observed. On the following day massive hematemesis recurred. Despite transfusions of blood, administration of diuretics and Pitressin®, and inflation of the Sengstenken-Blakemore tube, bleeding persisted and the patient died on the ninth hospital day.

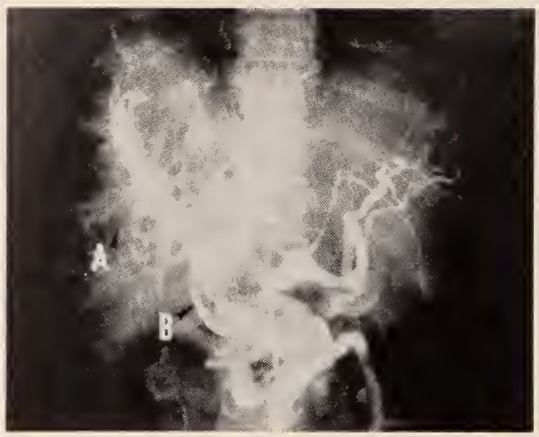


Figure 1: Selective Celiac Angiogram. Arterial Phase.

A. Large clusters of abnormal tumor vessels involving the right lobe of the liver.

B. Hepatic artery-portal venous shunting with large filling defect in the dilated portal vein.

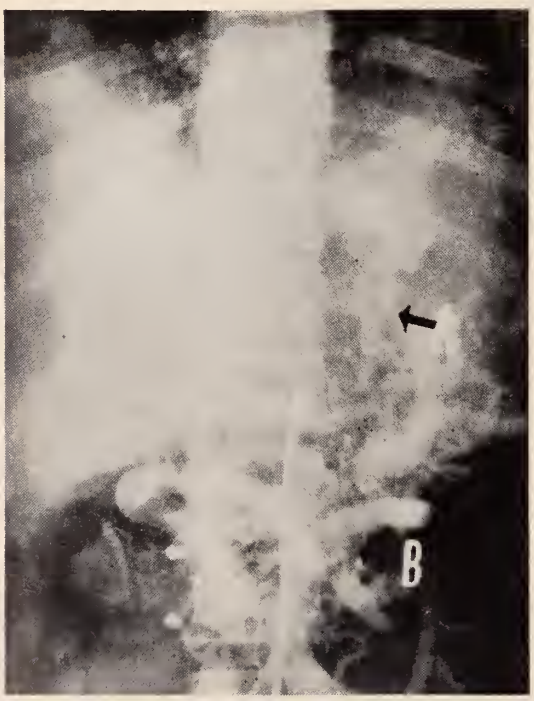


Figure 2: Selective Celiac Angiogram. Venous Phase.

A. Multiple gastric varices.

B. Contrast medium rapidly appears in the superior mesenteric vein indicating retrograde filling of the portal venous system.



Figure 3: The inferior surface of the liver reveals the dilated extrahepatic portal vein occluded with tumor (arrow).

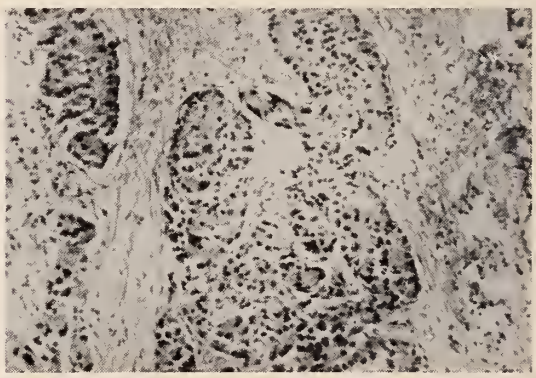


Figure 4: Hepatocarcinoma with cellular elements located in a trabecular pattern. H & E × 160.

At autopsy, the abdominal cavity contained 3000 cubic centimeters of clear, straw-colored fluid. The liver weighed 2350 Grams and was finely nodular. Multiple large tan tumor nodules were seen on the upper and lower surface of the enlarged right lobe. The portal vein and its major intra-hepatic branches were completely occluded by tumor tissue (Figure 3). The spleen weighed 430 Grams and appeared congested on sectioning. Multiple esophageal and gastric varices were identified with three discrete areas of rupture at the cardio-esophageal junction. No metastatic foci of tumor were noted.

Microscopic sections of the liver showed diffuse fibrosis with irregular pseudolobules. The fibrous bands varied in thickness and contained minimal round cell infiltrate and few bile ductules. Sections from the right lobe of the liver revealed extensive deposits of tumor which has a trabecular appearance. Many of

the tumor cells showed fatty vacuolation (Figure 4.). Microscopic evidence of hepatocarcinoma was noted in both portal and hepatic venous channels.

Discussion

The diagnosis of massive upper gastrointestinal bleeding requires a combination of clinical, endoscopic, and radiologic skills. In the case presented, the clinical findings of marked liver enlargement associated with a distinct bruit over the right lobe suggested hepatoma. This is a rapidly growing highly vascular neoplasm with a tendency to form arterio-venous shunts between the enlarged supplying hepatic artery branches and the portal venous system. The bruit is attributed to the increased hepatic artery blood flow shunting into portal venous channels.[3, 4] Esophageal and gastric varices were demonstrated by barium meal and bleeding from esophageal varices was confirmed by endoscopy.

The known predilection of hepatocarcinoma for portal vein invasion further suggested this phenomena as the cause of this patient's portal hypertension and subsequent bleeding. The increased incidence of portal vein invasion with thrombosis associated with hepatoma has been variously reported in clinical series as ranging from 26 to 33 per cent.[5, 6, 7] These figures represent a 15-fold increase in the frequency with which portal vein thrombosis was observed in patients with cirrhosis uncomplicated by neoplasia.[8]

Selective celiac angiography was performed to confirm the etiology and mechanism of gastrointestinal bleeding. As shown in the films selected from the study, this procedure clearly demonstrates the radiologic features of a diffusely infiltrating hepatocarcinoma with many enlarged tumor vessels arising from the hepatic artery. The presence of hepatic artery to portal vein shunting is diagnostic of hepatoma, and differentiates this lesion radiologically from other primary or metastatic tumors involving the liver.[2] Due to the rapid flow of contrast medium through these arterio-venous shunts, there is retrograde filling of the portal venous system during the early angiographic phase. Invasion of the portal vein by tumor thrombus is also seen. Films obtained during the venous phase are of value in demonstrating filling of the gastric collateral and mesenteric veins, further indicating portal hypertension. Extravasation of dye into the lumen of the upper gastrointestinal tract is not seen as the bleeding has ceased during the time of the procedure.

The gross and microscopic findings at post mortem examination fully confirm the clinical and radiologic findings. Although the additional pathologic report of macro-nodular cirrhosis was not anticipated, it is well known that the majority of cases of hepatoma in adults in this hemisphere are associated with pre-existing cirrhosis.[9] The cause of cirrhosis in this patient is unclear. Veno-occlusive disease of the liver was considered in view of the patient's Jamaican origin; but the characteristic occlusive changes of the central and smaller hepatic venous branches were not seen.[10]

Summary

A case report is presented demonstrating the value of selective celiac angiography in determining the etiology and mechanism of upper gastrointestinal bleeding in a patient with hepatoma, portal vein invasion, and portal hypertension.

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1. Gertler, M. M., et al.: Geriatrics *25*:134-148 (May) 1970.

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Ochronosis is a rare metabolic disorder, conventionally diagnosed by calcification of the intervertebral disc. Actually, as the authors here point out, this is not a dependable pathognomic sign.

The Calcified Intervertebral Disc

A Non-Specific Roentgenologic Sign

Jay A. Cohen, M.D. and Emanuel Abraham, M.D./Asbury Park*

A white line between two vertebrae on spine x-ray is said to be diagnostic of ochronosis, a rare metabolic disease.[1, 2, 3, 4] While internists have suggested this interpretation, a very old, parallel group of writings by radiologists indicates that the calcified intervertebral disc (CID) is common in many other situations. In this report we show by chemical tests that patients with CID do not always have ochronosis and we show that the CID is a common finding on routine x-rays.

To determine whether CID is rare or common in the general population, we selected from the files of our general internal medicine practice 100 consecutive lateral chest x-rays in which there were at least four clearly visible intervertebral spaces and we examined these lateral views for CID. We found that five of the 100 lateral chest x-rays showed a calcified disc. The CID did not appear in any particular area of the intervertebral space and varied in width from 2 to 6 millimeters without any associated interspace narrowing. Because of the sampling method and x-ray technic our figure may not represent the true incidence of CID but it clearly illustrates that CID is not uncommon.

In four cases with CID seen before the study, a negative Benedict's test occurred, ruling out any homogentisic acid in the urine and thereby ruling out ochronosis. One example is shown in the figure which is an x-ray of a patient who had two calcified intervertebral discs and a "vacuum sign" although there was



The two plain arrows point to calcified intervertebral discs; the crossed arrow points to a line of air density, a "vacuum sign," parallel to the horizontal surface of the vertebra in a patient who had no homogentisic acid in the urine, no arthritis, and no hyperpigmentation to suggest ochronosis.

* Dr. Cohen is Clinical Instructor of Medicine at New York Medical College, and Dr. Abraham is Chief of the Department of Medicine at Jersey Shore Medical Center, Neptune.

no homogentisic acid in the urine and no clinical hint of ochronosis.

This study shows what has been extensively implied by others—that opacification of the intervertebral space does not always mean ochronosis. While the link between CID and ochronosis was established in 1941, Sanstrom[5] pointed out that pathologists knew of disc calcification in 1858 and radiologists demonstrated opacification between vertebrae in 1897. Since then, there have been reports of CID with tuberculosis of the spine,[6] post-traumatic kyphosis,[7] herniated nucleus pulposus,[8] hemachromatosis,[9] articular chondrocalcinosis,[10] and acromegaly.[11] It also may occur in normals at any age and at any interspace[12]. It may be permanent or temporary.[5]

The widespread assumption that opacification between vertebrae always represents calcium appears warranted in view of Hendry's demonstration[13] that discs do not imbibe water, which is the only other common radiopaque substance in the body.

While certain x-ray features in CID suggest ochronosis, the diagnosis of this rare disease by x-ray alone is not possible and not necessary. The roentgenographic features suggesting ochronosis[14] are: opacification at several levels, calcification which is dense and extends from one edge of the spine to the other and an interspace which is narrowed. On the other hand ochronosis is a progressive disease in which calcification is absent or minimal in early stages, whereas other features of the disease become obvious in the late stages of heavy calcification.[15] As illustrated in the figure, the "vacuum sign" is probably of no help diagnostically because it also occurs in osteoarthritis and because such a line of air density parallel to the top of a vertebra may actually be normal since it occurs in the normal hip.[16]

Since ochronosis is a disease of homogentisic acid excess, diagnosis depends upon evidence of the chemical in the urine or in tissues. In the urine homogentisic acid can be measured by specific electrophoretic or chemical tests, but for ordinary purposes its effect on reducing substances such as Benedict's solution can alert the clinician to its possible presence and in this report we used a negative Benedict's reaction to rule out ochronosis. Clinically, homogentisic acid turns urine dark on standing and because sweat also turns black, patients with ochronosis may have blackened clothing. On inspection such patients may have dark sclerae. Pathologically, all cartilages can turn brown and calcify, particularly the ear, rib and trachea cartilages. The ossification described[17] pathologically in the discs of ochronosis patients is probably not specific for ochronosis for it has been described in disc calcification of other causes. Since the cartilage degradations of ochronosis are usually associated with osteoarthritis, the CID without osteoarthritis is not likely to be ochronosis.

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1201 Grand Avenue

Dr. Lutz here offers a simple method for reducing the likelihood of a headache after a spinal tap.

Postlumbar Puncture Headache Can Be Prevented

Elmar G. Lutz, M.D./Wayne

Ever since Quincke in 1891 performed the first diagnostic spinal tap, postspinal puncture headache has plagued patients and their physicians. These headaches often occur only when the patient is erect, so it seems logical that a pressure differential was produced between the cerebral and spinal cerebrospinal fluid compartments. Then it seemed equally logical to assume that the recumbent position could prevent this type of headache.

With this in mind, I performed 68 lumbar punctures on adult patients during my years of medical practice. None of my patients experienced any postlumbar puncture headache. Most lumbar punctures were on an ambulatory basis. Each patient after lumbar puncture was instructed to return quickly to the car (not to be driven by the patient) and to assume a knee-chest position in the back seat of the car until his return home. At home the patient was immediately to go in a recumbent, prone (face-down), horizontal position, for four hours. The out-patient was allowed to walk the short distance between office or out-patient department to the car and from the car to the home. These measures were sufficient to prevent postspinal headache, i.e., allowed enough time and freedom from cerebrospinal fluid (CSF) pressure gradients for the dural defect to be sealed off, thus impeding CSF drainage from the spinal subarachnoid into the epidural space.

Lumbar puncture was accomplished by inserting most frequently an 18-gauge short-beveled spinal needle (with a sharp-pointed stylet fitting snugly into the needle shaft) into the L4-5 or (less frequently) L3-4 interspace. While in one-third of patients, a 19-gauge or 20-gauge needle was used, I prefer the 18-gauge needle which is less flexible, allowing better perforation of the tissue, particularly of the often calcified ligamentum flavum. Most of the lumbar punctures were done with the patient in the sitting rather than in the recumbent position.

From a theoretical point of view it could be argued that the use of a smaller bore needle would be more advisable since the dural defect would be smaller. Gilland[1], with this in mind, used 24-gauge needles. In practice, however, the use of larger bore needles has not hindered the complete prevention of postspinal headache when combined with my method. The advantage of new, disposable needles, i.e., needles without hooks, is obvious.

The incidence of spinal puncture headache is said to be in the 10 to 25 per cent range. The headache presumably results from traction on the cerebral dura and blood vessels following the leakage of CSF through the spinal dura. The headache may persist for several days or even weeks with the highest incidence being reported on the third day. Female patients seem to experience postspinal headache more frequently.

Lumbar puncture headache is much more likely to develop in individuals with normal CSF than in those with abnormal fluids (Schofield).[2] The patient experiences frontal and occipital headache and nuchal pain

shortly after he assumes the erect position. Nausea and vomiting often follow and may even raise the question of a developing meningitis. Occasionally, an abducens palsy will appear following lumbar puncture.

Collateral evidence for the assumption that reduction of CSF-pressure in the cerebral subarachnoid space is responsible for the headache following lumbar puncture, is obtained from the observation of Arnvig.[3] He mentioned that in certain inner ear diseases, hearing is transiently improved with lumbar puncture, whereas in normal people there may be a transitory decrease of hearing. These findings are explained on the basis of a reduction of CSF pressure in the subarachnoid space with reduction in the intralabyrinthine fluid pressure by way of the cochlear aqueduct.

The treatment of postlumbar puncture headache consists in keeping the patient in a horizontal position until the condition subsides. The practice of keeping the patient flat in bed for a period of 12 to 24 hours following lumbar puncture generally was not considered instrumental in reducing the incidence of spinal puncture headache.

Aziz *et al.*[4] tried vasopressin in the prophylaxis of lumbar puncture headache but the incidence was unaffected. They felt, however, severe reactions appeared less frequently in the treated group. Moderately severe headaches occurred in 26 per cent of those receiving vasopressin. They concluded that routine use of this drug for the prevention of lumbar puncture headache is not justified.

Ozdil and Powell[5] tried to prevent puncture headache by attempts to seal the needle puncture site, the dural defect, with a small clot of the patient's own blood. Du pont and Sphire[6] also used an epidural blood patch by injection of autologous blood to prevent postspinal headache in postpartum patients. They did 42 epidural blood patches in 41 patients. The headache was relieved almost immediately after injection in all but two patients. In these two, relief was delayed only two to four hours. Relief was not lasting in one patient. In view of the danger of infection they felt, however, this procedure should be used only in patients with headache so severe that it interferes with normal recovery.

Bedrest, increased peroral and intravenous fluid intake and injection of 5 mg desoxycorticosterone acetate every 8 hours were the measures first used by Di Giovanni and Dunbar[7]. If unsuccessful, an epidural placement of the needle was made and 10 ml autologous blood was injected into the epidural space. The patient was placed supine and 500 to 1000 ml lactated Ringer's solution was given intravenously. After 30 minutes supine, the patient was allowed to walk. Of 45 patients, immediate and permanent relief occurred in 41. In five patients they carried out the procedure prophylactically immediately following lumbar puncture.

Gilland[1] aside from using 24-gauge needles supplied 27 ambulatory patients with an abdominal belt following lumbar puncture. The abdominal belt was tightened sufficiently to raise the CSF pressure to about 200 millimeters of water. The belt was used for at least a day and a night following the tap. Four patients experienced headache, but three obtained relief by lying down temporarily and tightening the belt further. Gilland felt his procedure would facilitate the healing of the dural defect. On closer scrutiny it can be seen that the 15 per cent occurrence of postlumbar puncture headache in his patients does not differ from the statistical occurrence without treatment. That the headache was relieved by lying down is also not surprising since—except for lumbar punctures associated with injection of contrast media—the headache only occurs in the erect position.

Confronted with such reports I felt obligated to report my simple and successful method. I emphasize the prone (face-down) and horizontal position. CSF leakage for obvious reasons occurs more easily in the supine position. The initial knee-chest position (approximately one-half hour) is favorable from a fluid-dynamic point of view but should be intermit-

tent to avoid cephalic congestion.

While the drainage of CSF producing a diminution of intracranial pressure with retraction of the brain from the dura is held responsible for postlumbar puncture headache, it appears that it is less the static than the dynamic diminution of intracranial CSF pressure which is responsible. This dynamic diminution is accompanied by increased CSF flow, i.e. a steeper pressure gradient, between cerebral and lumbar-spinal CSF compartments at opposite ends, very obvious in the erect, gravity-facilitated position. There is no pressure gradient in the case of the cisternal puncture and therefore no postpuncture headache.

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Hazards of Barbiturates

The Bureau of Narcotics and Dangerous Drugs has proposed restricting sales of nine barbiturates which were described as highly addictive and linked to 1,771 suicides and deaths in the last 17 months. The Bureau said the barbiturates are more dangerous than heroin. "Withdrawal from these drugs can be fatal and, in many instances, withdrawal symptoms are more severe from a barbiturate habit than from heroin addiction," BNDD Director John E. Ingersoll said. He identified the barbiturates by their generic names as amobarbital, butabarbital, cyclobarbital, heptabarbital, pentobarbital, probarbital, secobarbital, talbutal, and vinbarbital. He listed five brand-name drugs: Seconal (secobarbital), Tuinal (amobarbital and secobarbital), Amytol (amobarbital), Nembutal (pentobarbital) and Butisol (butabarbital).

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Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYNTHROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they do occur, are secondary to increased rates of body metabolism; sweating, heart palpitations with or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

In most cases with side effects, a reduction of dosage followed by a more gradual adjustment upward will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) TABLET is equivalent to approximately one grain thyroid, U.S.P. Administer SYNTHROID tablets as a single daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.



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Cholestatic hepatitis with jaundice and altered liver function tests, such as increased BSP retention and rises in SGOT levels, have been reported after Methyltestosterone. These changes appear to be related to dosage of the drug. Therefore, in the presence of any changes in liver function tests, drug should be discontinued.

PRECAUTIONS: Prolonged dosage of androgen may result in sodium and fluid retention. This may present a problem, especially in patients with compromised cardiac reserve or renal disease. In treating males for symptoms of climacteric, avoid stimulation to the point of increasing the nervous, mental, and physical activities beyond the patient's cardiovascular capacity.

CONTRAINDICATIONS: Contraindicated in persons with known or suspected carcinoma of the prostate and in carcinoma of the male breast. Contraindicated in the presence of severe liver damage.

WARNINGS: If priapism or other signs of excessive sexual stimulation develop, discontinue therapy. In the male, prolonged administration or excessive dosage may cause inhibition of testicular function, with resultant oligospermia and decrease in ejaculatory volume. Use cautiously in young boys to avoid premature epiphyseal closure or precocious sexual development. Hypersensitivity and gynecomastia may occur rarely. PBI may be decreased in patients taking androgens. Hypercalcemia may occur, particularly during therapy for metastic breast carcinoma. If this occurs, the drug should be discontinued.

ADVERSE REACTIONS: Cholestatic Jaundice • Oligospermia and decreased ejaculatory volume. • Hypercalcemia particularly in patients with metastic breast carcinoma. This usually indicates progression of bone metastases. • Sodium and water retention. • Priapism • Virilization in female patients • Hypersensitivity and gynecomastia.

DOSAGE AND ADMINISTRATION: Dosage must be stricly individualized, as patients vary widely in requirements. Daily requirements are best administered in divided doses. The following chart is suggested as an average daily dosage guide.

INDICATION	Average Daily Dosage Tablets
In the male:	
Eunuchoidism and eunuchism	10 to 40 mg.
Male climacteric symptoms and impotence due to androgen deliciency	10 to 40 mg.
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There is a developing role for urgent surgery in the control of cardiac arrhythmias.

Emergent Surgery in the Management of Coronary Artery Disease*

Joseph D. Cohn, M.D. and Harvey E. Nussbaum, M.D./Livingston

With the growth of well-staffed and well-equipped community hospital-based coronary care units, deaths from arrhythmic complications of acute myocardial infarction have been significantly reduced. New procedures have resulted in an effective approach toward the management of acute myocardial infarction. Though deaths continue to occur as a result of uncontrolled arrhythmias, death from myocardial infarction may also be due to cardiogenic shock or refractory cardiac failure. Acute structural alterations within the myocardium including cardiac rupture, acute interventricular septal perforation, papillary muscle rupture, and ventricular aneurysm also result in a high mortality.[1] Until recently, urgent surgery for patients with acute functional and structural alterations associated with myocardial infarction has been infrequent because of the near prohibitive mortality.

The current availability and early application of mechanical circulatory assistance has allowed hemodynamic stabilization of patients with cardiogenic shock. It has provided an additional time during which further diagnostic studies[2] including cardiac catheterization, cine-coronary angiography, and left ventriculography may be performed to define altered myocardial anatomy and function.

Cardiogenic Shock

Cardiogenic shock complicating acute myocardial infarction or myocardial failure from other causes presents a formidable threat to life. It is associated with a high mortality rate when treatment is based solely on a pharmacologic regimen. The recent development and availability of devices for improving cardiac hemodynamics has provided a valuable approach to the problem of cardiogenic shock and associated pump failure.[3]

The principles of mechanical assistance to the failing ventricle are currently being developed through the use of intra-aortic balloon counterpulsation technics. Through this modality a dual-chambered balloon catheter conforming to the shape of the intra-thoracic aorta is introduced through a femoral arteriotomy incision. Balloon filling is synchronized with the diastolic phase of the cardiac cycle providing augmentation of coronary arterial flow. Rapid emptying of the intra-aortic balloon occurs during cardiac systole and reduces pre-load, diminishing myocardial work.[4]

The Datascope System 80 Intra-aortic Balloon Counterpulsation Unit† is currently used at Saint Barnabas Medical Center for patients with cardiogenic shock. Patient selection is based on physiologic parameters and response to medical therapy, as initially proposed by Goetz and co-workers.[5] The definition of cardiogenic shock is based upon the clinical low cardiac output syndrome and must include a systolic blood pressure of less

*From the Saint Barnabas Medical Center, Livingston, New Jersey.

†Datascope System 80, Datascope Corporation, 520 Victor Street, Saddlebrook, New Jersey 07662.

than 80 (or less than 100, if formerly hypertensive) and a urine ouput less than 20 ml. per hour. Initial medical treatment of the patient with cardiogenic shock consists of volume replacement and inotropic agents as well as additional supportive therapy. If a low cardiac output syndrome persists as documented by serial cardiac output studies and corroborated by persistent hypotension and oliguria unresponsive to medical management, early intra-aortic balloon pumping is recommended.

Intra-aortic balloon counterpulsation is done with a dual-chambered intra-aortic assist device. The portable, battery operated mode of this equipment allows intra-aortic balloon pumping to be performed anywhere in the hospital and permits transportation of patients between hospital facilities.

Under local anesthesia at the bedside, the femoral artery is cannulated under direct vision and an appropriate dual-chambered intra-aortic balloon is guided into the thoracic aorta segment. The balloon cannula is then attached to the control unit and phasic balloon inflation and deflation is commenced synchronous with cardiac diastole and systole. This technic has produced reversal of the cardiogenic shock state. Pulmonary edema clears, urine output increases, and the balance between myocardial oxygen demand and myocardial oxygen supply improves.[6] It has given several hours of additional time necessary in some instances further to evaluate myocardial dynamics through cardiac catheterization and coronary angiographic studies.

Rupture of Ventricular Septum

Ventricular septal rupture is an uncommon event following acute myocardial infarction and accounts for fewer than 2 per cent of all deaths following myocardial infarction. Rupture of the ventricular septum usually occurs in the lower muscular septal area and is associated with an anterior septal infarct. This complication usually occurs within the first week after myocardial infarction and becomes clinically apparent by the sudden deterioration in clinical status manifested by the development of a loud systolic, parasternal murmur and progressive biventricular failure in an already compromised heart.

The diagnosis of this complication must be strongly suspected during the abrupt onset of a harsh systolic murmur at the left sternal border. Since it is difficult clinically to distinguish ruptured ventricular septum from mitral regurgitation (due to rupture of the papillary muscle), cardiac catheterization is necessary to establish the diagnosis. The most expedient method for establishing the diagnosis of ruptured ventricular septum should be utilized. Reliance should be placed predominantly on oxygen saturation series and indicator dilution studies. Ventriculography and cine-coronary angiography have little place in the emergency diagnostic study in patients with uncompensated left ventricular failure since surgery is directed toward repair of the ventricular septal defect only. Surgical revascularization of the coronary arterial circulation is based on standard criteria following repair of the interventricular septal defect.

Since 24 per cent of patients die within 24 hours following the development of septal rupture, attempts at surgical correction are well justified if the patient can no longer be supported by a well-controlled medical regimen. Surgical approaches in the past have included right or left ventriculotomies for repair of the ventricular septal defect combined with infarctectomies[7] and left ventricular aneurysmectomies with total cardiopulmonary bypass.[8] Coronary arterial revascularization is usually deferred to a later date, as acute, uncompensated, clinical deterioration less than two weeks from the time of septal rupture with a left to right shunt greater than 3 to 1 is a sufficient hemodynamic reason for refractory myocardial failure. In this situation closure of the defect combined with or without infarctectomy is the procedure of choice. If the hemodynamic abnormality caused by the left to right shunt is marginal and left ventricular power failure is the dominant hemodynamic defect, direct coronary artery re-

vascularization may be combined with closure of the acquired septal defect. Similarly, if medical management has resulted in compensated myocardial hemodynamics over a period of 4 to 8 weeks following septal rupture a more thorough evaluation of coronary artery anatomy and ventricular function is strongly indicated with a view toward combined septal defect repair and coronary artery revascularization.

Papillary Muscle Rupture

Rupture of the posterior papillary muscle following a posterior wall myocardial infarction allows prolapse of the posterior leaflet of the mitral valve during ventricular systole. Acute mitral regurgitation produced by this means and associated with an already compomised left ventricular muscle results in a significant and abrupt clinical deterioration leading toward intractable left ventricular failure and cardiogenic shock. The high mortality of this complication necessitates prompt diagnostic confirmation and differentiation from ventricular septal rupture. In the critically ill patient with uncompensated left ventricular failure, right heart cardiac catheterization is presently the procedure of choice. Pressure measurements and oxygen saturation series are sufficient to establish the diagnosis.

Chance for survival following surgery is improved if surgical repair can be effected several months after the acute infarction has occurred. To this end, medical therapy is continued in the early post-infarction period if hemodynamic stability and functional improvement occur. Failure of medical therapy is not infrequent and it is also unusual for functional recovery to proceed to the extent that surgical repair is no longer indicated. If intensive medical therapy does not result in improved myocardial dynamics, urgent cardiac catheterization is indicated. The occurrence of refractory left ventricular failure, pulmonary edema, or cardiogenic shock dictates the need for immediate circulatory assistance to obtain cardiovascular stabilization during the period required for diagnostic studies. In this situation, where left ventricular power failure is associated with acute mitral regurgitation, complete hemodynamic evaluation is indicated including intracardiac pressure recordings, left ventriculography, and cine-coronary angiography. For significant salvage where the mortality with medical therapy approaches 100 per cent, selection of coronary artery bypass or infarctectomy in addition to mitral valve replacement will be required.[9]

Ventricular Wall Dysfunction

Aneurysm of the left ventricular wall is not an infrequent complication following myocardial infarction. The incidence of this aneurysm is not readily appreciated since missed diagnoses are common without the aid of complete diagnostic studies obtained through cardiac catheterization and angiographic evaluation.

The clinical features of acute left ventricular aneurysm are related to persistent left ventricular cardiac failure. Arrhythmic and peripheral arterial embolic complications may be the first indication of aneurysm formation. The hemodynamic alterations in ventricular aneurysm formation include a decreased ejection fraction and an increased left ventricular end-diastolic volume related to the area of the aneurysm and other areas of left ventricular akinesis. Improved performance of the left ventricle is directly related to improvement in these parameters as well as improved fiber shortening in the adjacent ischemic myocardial muscle.

The low surgical mortality associated with resection of left ventricular aneurysms with total cardiopulmonary bypass demands early diagnostic evaluation and documentation of aneurysm formation, ventricular function, and coronary artery morphology.

Indications for ventricular aneurysm resection are based upon persistent cardiac failure,[1] ventricular arrhythmias, and peripheral thromboemboli.[10] As is true of all surgical procedures for complications of coronary artery disease, ventricular aneurysm resection is a palliative procedure. The eventual out-

come depends upon the natural course of the underyling arteriosclerotic process. Whether combined, direct coronary artery revascularization can alter the basic course of this disease remains controversial.

Pre-Infarction Angina

The term, "pre-infarction agina," relates to a syndrome in a group of patients who have severe and unstable angina pectoris. Onset of angina may be recent or the pattern of angina may have undergone recent alterations in frequency or severity. Symptoms occur at rest or at night or following a meal. Pain may last a variable period of time and is inconsistently relieved by sublingual nitroglycerine. These symptoms may not be accompanied by serum enzyme elevations or changes in the electrocardiogram. Alterations in ST segments and T waves, which frequently do occur, usually return to normal after relief of pain. Often a crescendo pattern of angina is noted with increasing severity and frequency of the pain, culminating in an acute myocardial infarction.

The pre-infarction angina syndrome is frequently associated with high grade proximal obstruction of the coronary artery circulation. Depressed left ventricular function due to severe myocardial ischemia occurs as a result of the obstructive coronary artery process.

Chatterjee and co-workers[11] have reported six patients with detailed hemodynamic and angiographic studies. All six had the pre-infarction angina syndrome. Pre-operative evaluation disclosed evidence of depressed left ventricular performance. High grade, proximal, left or right coronary artery obstructions were noted in all instances. Saphenous vein aorto-coronary artery bypass procedures were performed and resulted in improved ventricular performance in five patients in whom a left anterior descending aorto-coronary artery bypass was constructed.

Crescendo or pre-infarction angina is a frequent mode of presentation in the spectrum of coronary artery disease. Prompt diagnosis of this and emergent hemodynamic and angiographic evaluation[12] is necessary to establish the feasibility of surgical revascularization, the procedure of choice in this select group of patients.[13]

Case Report

A 60-year old, diabetic male was admitted to Saint Barnabas Medical Center on May 1, 1972 with recent onset of retrosternal chest pain. He had had acute myocardial infarction nineteen years prior to this admission. He was symptom free until April 24, 1972 when he noted the gradual onset of fatigue and the appearance and gradual development of retrosternal chest pain. On the day of admission pain was most severe, radiated to both shoulders and was accompanied by diaphoresis, shortness of breath, nausea, and vomiting.

The patient is a known diabetic and receives 40 units NPH insulin daily. There is no history of hypertension or cigarette smoking. When we saw him, he was a well-nourished and well-developed middle-aged male in no acute distress. Blood pressure was 130/83. Pulse was 44 and regular, respiration 18 per min. and temperature 97.6. Pertinent physical findings were limited to the cardiovascular system. The lungs were clear and rales were not audible. The heart was not enlarged. The rhythm was regular with occasional premature contractions. There were no murmurs, gallops, or rubs. The neck veins were not distended. Peripheral edema was not present.

Initial laboratory studies disclosed hemoglobin 15.9, hematocrit 48.5, and white blood count 5,800. Urinalysis was within normal limits except for 4+ glucosuria. Blood urea nitrogen was 20 mgm. and electrolytes were sodium 130 meq./lit., potassium 4.5 meq./lit., carbon dioxide 23 meq./lit. and chloride 93 meq./lit. A random blood glucose on the day of admission was 236. Values for serum calcium, phosphorus, uric acid, albumin, total bilirubin, and alkaline phosphatase were within normal limits. The automated serum reagin test was non-reactive. Serum enzyme determinations including lactic dehydrogenase, glutamic oxaloacetic transaminase, creatine phosphokinase and hydroxybuteric dehydrogenase were performed daily for the first four days and disclosed no elevations. Serum cholesterol was 206 mgm., serum triglyceride 120 mgm., and the serum lipoprotein electrophoresis was normal. X-ray of the chest on admission was within normal limits. Electrocardiogram on admission showed sinus bradycardia.

Following admission, continuous monitoring of the electrocardiogram was performed in the coronary care unit. The sinus bradycardia was controlled with parenteral administration of atropine and he remained pain free for the first four days following admission. Subsequently, a crescendo pattern of anginal pain developed. Retrosternal pain occurred at rest, awakened him at night and occurred postprandially. It was intermittently relieved by sublingual nitroglycerine and frequently required narcotics for control. Throughout this period of recurrent anginal attacks, serum enzyme patterns remained within normal limits. Serial electrocardiograms demonstrated variable inversion of T waves across the anterior precordium and were compatible with myocardial ischemia and subendocardial infarction.

Because of the crescendo nature of the anginal pattern without direct evidence of myocardial infarction, emergent cardiac catheterization and cineangiographic studies were done to evaluate left ventricular function and to delineate the coronary artery circulation.

On May 18, 1972 right and left heart catheterization and cine-coronary arteriography were performed by the Sones technic. Hemodynamic data indicated a right atrial pressure of 4. The right ventricular pressure was 46/5 and the pulmonary artery pressure measured 46/23 with a mean pulmonary artery pressure of 32. The pulmonary artery wedge pressure showed a mean of 20 with an A wave of 26 and a V wave of 24. Left ventricular pressure measured 129/8 and on pullback into the aortic root a pressure of 129/68 was recorded. Following angiography the left ventricular pressure measured 125/14. During the procedure an anginal attack occurred with systemic hypotension, diaphoresis and ST segment elevation at which time the left ventricular end-diastolic pressure was recorded at 25 mmHg. Cardiac output was computed to be 3.7 lit./min. and cardiac index 2.3 lit./min. The arteriovenous oxygen difference was 5.7 vol. per cent.

Opacification of the right and left coronary arterial systems was accomplished by hand injections of Renografin® 76. The main left coronary artery is widely patent and free of disease. It bifurcates into the left anterior descending and circumflex coronary arteries.

The circumflex system is dominant and there is a 25 per cent obstruction in the lumen proximally. The circumflex artery then gives off several lateral branches. The origin of the most superior lateral branch in the left anterior oblique projection is compromised to 70 per cent of the normal lumen. The circumflex artery then continues in the atrioventricular sulcus posteriorly, giving off several branches. Considerable irregularity of the lumen and the distal circumflex system is noted. (Figure 1)

The left anterior descending coronary artery in both projections shows an area of narrowing in the proximal portion measuring 80 per cent of the normal arterial lumen. The right anterior oblique projection shows the area of obstruction to be rather long and subtends a section of vessel which gives off the first four or five visualized septal perforators. The artery then extends in the interventricular sulcus toward the apex of the heart with unimpaired flow. (Figure 2).

The right coronary artery in the right anterior oblique projection shows multiple proximal obstructions with diffuse distal disease. There is no visualized vessel distal to the posterior descending branch. Multiple obstructions are also present in the marginal branch of the right coronary artery. (Figure 3).

Left ventriculography showed good contractility of the entire left ventricular musculature in all areas. There was no evidence of akinesis or dyskinesis of the left ventricular chamber and emptying was normal. There was no evidence of mitral insufficiency. The aortic outflow tract opened widely.

Diagnostic studies demonstrated triple vessel coronary artery obstructive disease. The major lesion appeared to be a high grade obstruction in the proximal portion of the left anterior descending coronary artery. The right coronary artery was diffusely involved both proximally and distally. Minor obstructions were present in the proximal portion of the circumflex coronary artery and diffuse disease was noted distally.

Because of the crescendo nature of the anginal pat-



Figure I—The left coronary artery is visualized in the left anterior oblique projection. The main stem left coronary artery is widely patent and free of disease. The circumflex coronary artery system is dominant and demonstrates a 25 per cent compromise of the normal arterial lumen as indicated by the single long arrow. The circumflex coronary artery gives off several lateral branches. The origin of the most superior lateral branch is compromised to 70 per cent of the normal lumen as indicated by the double short arrows. The left anterior descending coronary artery shows an area of narrowing in the proximal portion as indicated by the single short arrow. This artery then continues in an irregular fashion toward the apex of the heart.

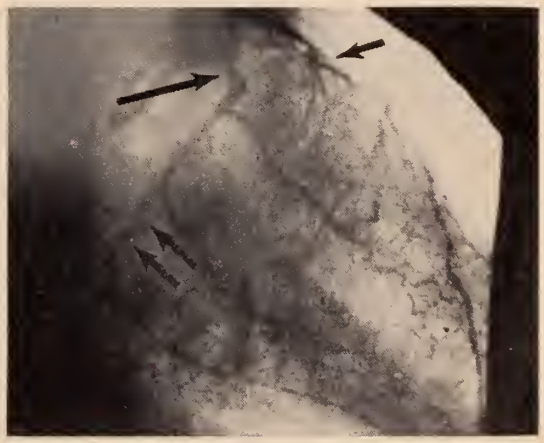


Figure II—The left coronary artery system is demonstrated in the right anterior oblique projection. The circumflex coronary artery shows mild obstruction in its proximal portion as indicated by the single long arrow. Diffuse distal disease is now seen in the circumflex coronary artery as indicated by the double short arrows. This intimal irregularity is present in the distal portion of the vessel after the origin of both lateral branches.

The left anterior descending coronary artery obstruction begins at the origin of the first septal perforator as indicated by the single short arrow. The obstruction in this view is in the range of 80% of the normal arterial lumen. The disease segment is long and subtends the section of vessel which gives off the first four or five visualized septal perforators. The artery then extends along the interventricular sulcus toward the apex of the heart without evidence of significant distal obstruction.

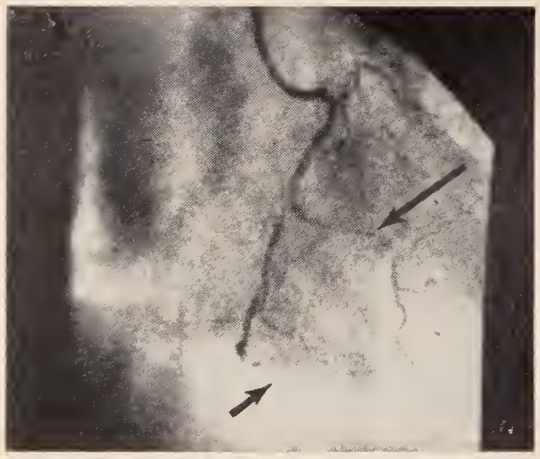


Figure III—The right coronary artery is visualized in the right anterior oblique projection and demonstrates significant obstruction to flow along its entire main trunk. The right coronary artery terminates in the posterior descending coronary artery as shown by the single short arrow. Diffuse atheromatous disease is present within the posterior descending artery. The marginal branch of the right coronary artery is indicated by the single long arrow and demonstrates multiple diffuse obstructions.



Figure IV—The saphenous vein autograft and its anastomosis to the left anterior descending coronary artery is visualized in the right anterior oblique projection in this postoperative study. The extent of the saphenous autograft is indicated by the two short arrows. Prograde and retrograde flow through the left anterior descending coronary artery allows visualization of the septal perforating branches. There is collateralization through the septum to distal segments of the right coronary artery. The right coronary artery fills by retrograde flow as indicated by the single long arrow. This collateral network was not noted on the preoperative study.

tern and the finding of a surgically remedial lesion on cine-coronary angiography, emergent aorto-coronary artery bypass was performed immediately following diagnostic evaluation.

On May 18, 1972 a reversed saphenous vein segment was anastomosed between the aorta and the mid portion of the left anterior descending coronary artery. The surgical procedure was without incident.

Post-operatively, two episodes of supraventricular tachycardia occurred and appeared to be related to the occurrence of hypoglycemia and hypokalemia. Though ventricular response rates of 170 per min. were recorded, at no time did anginal pain recur. The arrhythmias were readily brought under control and the remainder of the post-operative course was uneventful.

On May 30, 1972, twelve days following coronary artery bypass surgery, a repeat cardiac catheterization was performed. Left heart cardiac catheterization and coronary arteriography were performed percutaneously through the femoral artery by use of the Judkins technic. Left heart pressure recordings demonstrated a left ventricular pressure at rest of 108/8. Following angiography the recorded pressure was 111/13.

Cine-coronary angiography disclosed a patent saphenous vein autograft. The anastomosis is visualized to the left anterior descending coronary artery and filling occurs completely both prograde and retrograde up to the area of obstruction noted previously. The entire septal circulation is well visualized and there is now collateralization through the septum to the distal segments of the right coronary artery. This collateral network was not noted on the preoperative study. (Figure 4).

Injection was also performed through the normal left coronary artery orifice and demonstrated filling of the circumflex coronary artery with obstructions present as on the preoperative study. The left anterior descending coronary artery no longer fills in a prograde

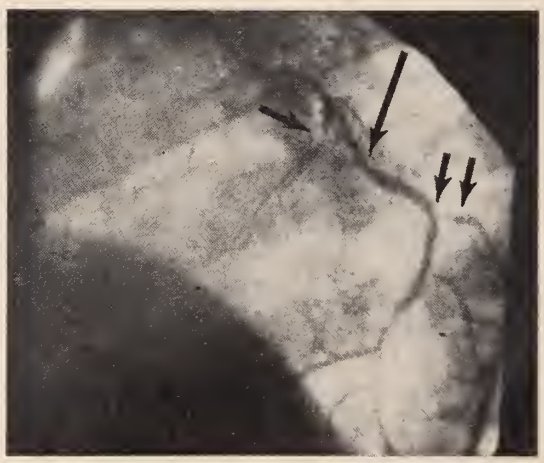


Figure V—The left coronary artery system is visualized in the left anterior oblique projection in this postoperative study. The proximal portion of the circumflex coronary artery shows slight narrowing as indicated by the single long arrow, similar to that visualized on the preoperative study. The first lateral branch of the circumflex coronary artery is also narrowed significantly as shown by the double short arrows. Diffuse distal disease is again evident in the distal portion of the circumflex coronary artery.

The left anterior descending coronary artery is now visualized only in its proximal portion as indicated by the single short arrow. Visualization is obtained proximal to the major obstruction noted on the preoperative study. A few septal perforators arising from the stump of the left anterior descending coronary artery are visualized. The left anterior descending coronary artery is then completely obstructed without visualization of distal vasculature.

fashion along its entire length. A few septal perforators arise from the stump of the left anterior descending coronary artery and complete obstruction is then noted (Figure 5).

The right coronary artery again showed major proximal obstructions and diffuse distal disease with intimal irregularity and a compromise of the lumen diameter virtually from orifice to termination of the arterial system. These findings were identical to those observed in the preoperative study.

The left ventriculogram demonstrated good contractility of the left ventricular musculature in all areas.

Patency of the saphenous vein autograft and filling of the left anterior descending coronary artery and septal perforating vessels demonstrated a satisfactory anatomical result of emergency coronary artery bypass surgery. The fortuitous occurrence of atrial tachycardia with a rapid ventricular response of 170 per min., without the development of angina, illustrated a gratifying physiologic response in this patient who presented with a pre-infarction anginal syndrome.

The patient is presently asymptomatic and is being followed on an out-patient basis. He has currently resumed his business activities as an auto mechanic.

Ventricular Arrhythmia

With improved patient monitoring and early arrhythmia detection, effective treatment of electrical disturbances is commonplace. Occasionally, however, well recognized ventricular arrhythmias cannot be controlled solely with medical management. Numerous reports document the occurrence of recurrent, refractory, ventricular tachycardia associated with ventricular aneurysm formation and ischemic zones of myocardium surrounding ventricular aneurysms from which electrical ectopic foci originate. Similar ischemic areas surrounding zones of infarcted myocardium may also initiate ectopic electrical activity. Occasionally the electrical activity originating from these areas cannot adequately be controlled by antiarrhythmic agents. It is under these circumstances that a surgical approach is indicated.[10, 13]

The surgical procedure is dictated by the findings of cardiac catheterization and coronary angiography. Ventricular aneurysms require resection, and ischemic myocardium due to obstructive coronary artery disease dictates revascularization employing a bypass procedure. Acute myocardial infarction resulting in uncontrolled ventricular arrhythmias may require myocardial infarctectomy as proposed by Griffith.[14]

The surgical approach to cardiac arrhythmia control is in its infancy. Recurrent ventricular arrhythmias are known to arise from ischemic zones of myocardium related to left ventricular wall aneurysms and coronary artery obstructive disease. Repair of these defects may eliminate the ectopic electrical foci.

Summary

Urgent surgery for the complications of coronary artery disease plays a significant role in the integrated, total management of patients with acute myocardial infarction. The complications of cardiac rupture, rupture of the interventricular septum, papillary muscle rupture, ventricular aneurysm and uncontrolled ventricular arrhythmias associated with cardiogenic shock or ventricular failure dictate prompt supportive measures including intra-aortic balloon counterpulsation. Under these circumstances, emergency diagnostic evaluation utilizing cardiac catheterization, ventriculography and cine-coronary angiography is necessary for documentation of myocardial function and delineation of coronary artery anatomy with the view toward emergency surgical repair or revascularization.

A report detailing the case history of a patient with the pre-infarction angina syndrome is presented. A high grade, proximal, left anterior descending coronary artery obstruction was noted during emergency cardiac catheterization and cine-coronary angiography. Emergency saphenous vein aorto-left anterior descending coronary artery bypass was performed with relief of angina. Post-operative studies demonstrated patency of the saphenous vein autograft and improved collateral flow to the left ventricular myocardium was visualized.

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94 Old Short Hills Road

Bleak Outlook for Skid Row Alcoholics

The confirmed skid row alcoholic who has been in and out of the local jail for years for drunkenness is virtually incurable. Emphasis in the future must be directed to predicting in advance who will become skid row bums and setting up ways to prevent it.

These are the conclusions reported in a study by a New Orleans research group, published in the May 1973 *Archives of General Psychiatry*. The research group has set up a study treatment program for 210 confirmed skid row drunks.

One-third were treated as compulsory outpatients; one-third as compulsory in-patients with follow-up outpatient treatment, and one-third as voluntary outpatients. The study was first planned for a two-year period, but was abandoned at the end of the first year, because of lack of success. None of the three treatment approaches worked. At the end of the year only 13 of the original 210 subjects were rated as treatment successes, or 6 per cent.

"The number of successes within the three treatment groups is obviously too small to provide reliable comparisons and is best considered attributable to chance," the research team says.

The study points up the tremendous cost to society of the present approach to arresting and jailing these individuals, only to have them back again in a few days or weeks. In New Orleans, at any given time, approximately 60 per cent of the prisoners in Central Lockup and 75 per cent of offenders in the House of Detention are revolving-door alcoholics.

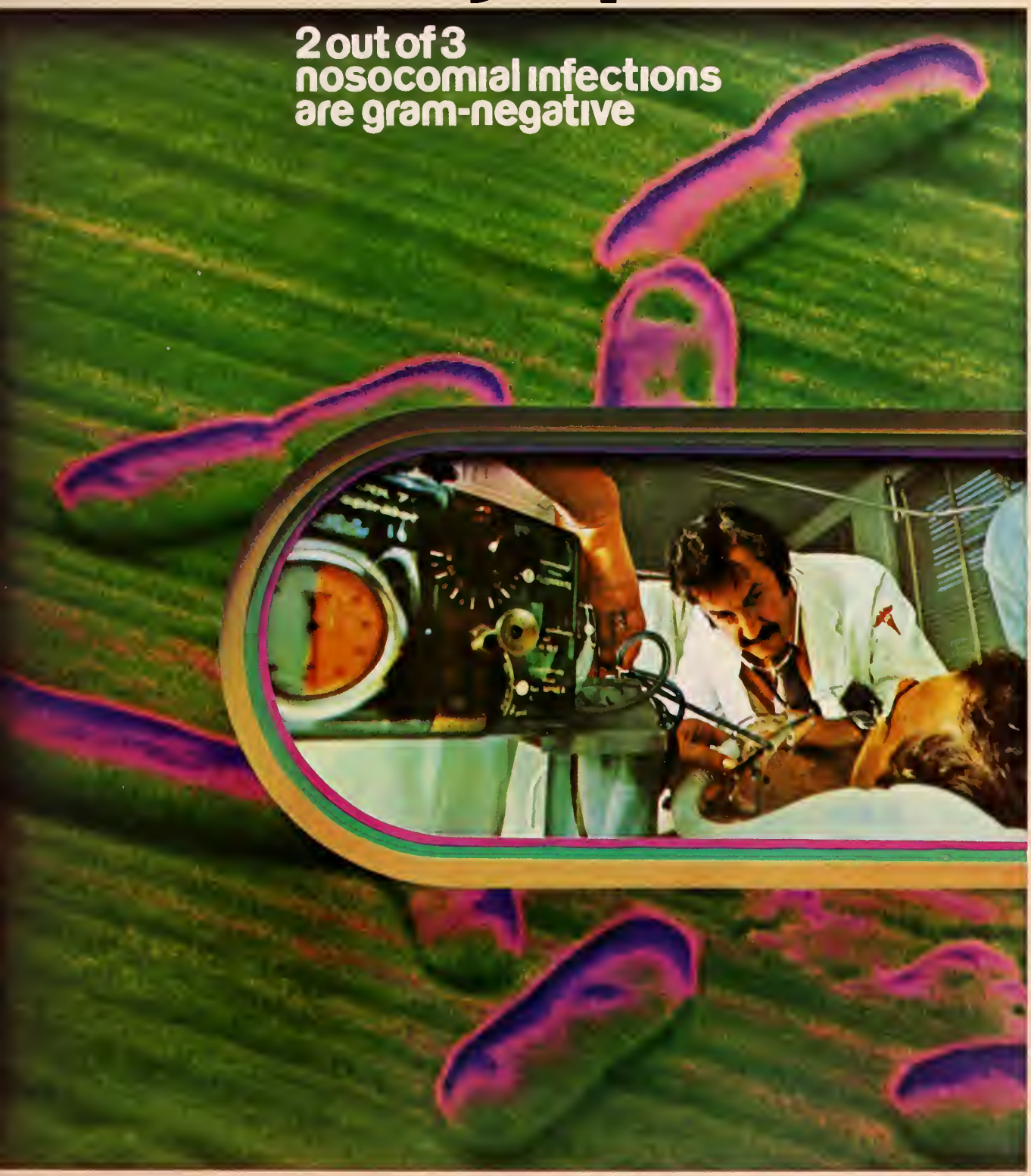
"The endless cycle diverts a major portion of the police force and judiciary system from attention to more serious crime with tragic implications for the community." Half of the 210 subjects in the study had been arrested more than 50 times; 65 per cent had arrest records dating back more than 10 years.

"The primary treatment goal must be the elimination of the revolving-door system through the provision of early diagnosis and compulsory treatment for the potential skid row alcoholic immediately after his first offense."

However, "At present there are no adequate prognostic clinical or psychologic test data which identify the potential skid row alcoholic," the group adds. They call for more research efforts toward adequate early diagnosis, so that early treatment may begin.

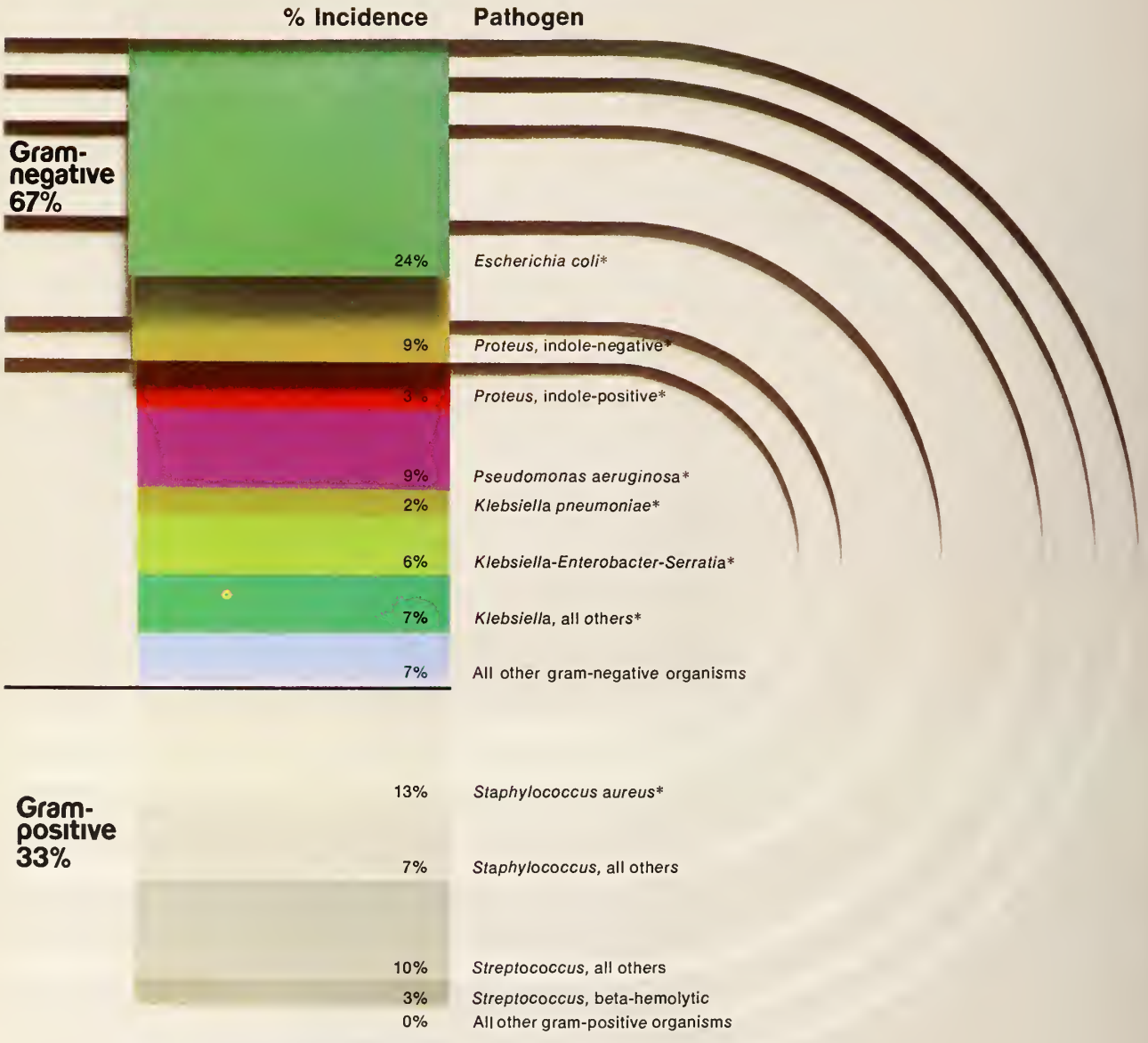
Schering

On all in-patient services... a major problem



Gram-negative bacteria magnified 10,000 times—color-tinted

Commonly encountered pathogens on all hospital services



Total pathogens 21,972
Source: Gosselin Audit of Pathology Cultures—1971

*GARAMYCIN Injectable is effective against susceptible strains of the pathogens indicated.

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Schering

A highly appropriate spectrum for today's problem pathogens

GARAMYCIN Injectable offers a high probability of effectiveness against susceptible strains of seven out of seven major gram-negative pathogens. These are:

Escherichia coli
Proteus, indole-negative
Proteus, indole-positive
Pseudomonas aeruginosa
Klebsiella
Enterobacter } species
Serratia

GARAMYCIN Injectable has also been shown to be effective in serious staphylococcal infections. It may be considered in those infections when penicillins or other less potentially toxic drugs are contraindicated and bacterial susceptibility testing and clinical judgment indicate its use.



In serious gram-negative infections (pneumonia, urinary tract infections, septicemia, and wound infections)*
*Due to susceptible organisms

Start with Garamycin

■ **Broad gram-negative spectrum**
Because of its broad gram-negative spectrum and its well-established clinical efficacy, GARAMYCIN Injectable can be considered for initial therapy in suspected as well as documented gram-negative sepsis.

Stay with Garamycin

■ **Susceptibility of causative organisms confirmed**
The results of susceptibility tests will, in most cases, demonstrate the causative organisms' sensitivity to GARAMYCIN Injectable. However, the decision to continue therapy with this drug should also be based on the severity of the infection and the important additional concepts contained in the Warning Box.

■ **Relatively low incidence of adverse reactions**
Risk of toxic reactions is low in patients with normal renal function who do not receive GARAMYCIN Injectable at higher doses or for longer periods of time than recommended.

■ **Bacterial resistance has not been a problem**
In the laboratory, resistance has been demonstrated to develop slowly in stepwise fashion. No one-step mutations to high resistance have been reported to date.

On all in-patient services...

Garamycin®
gentamicin sulfate injectable

I.M./I.V.

40 mg. per cc.
Each cc. contains gentamicin sulfate equivalent to 40 mg. gentamicin

WARNING
Patients treated with GARAMYCIN Injectable should be under close clinical observation because of the potential toxicity associated with the use of this drug.

Ototoxicity, both vestibular and auditory, can occur in patients, primarily those with pre-existing renal damage, treated with GARAMYCIN Injectable, usually for longer periods or with higher doses than recommended.

GARAMYCIN Injectable is potentially nephrotoxic, and this should be kept in mind when it is used in patients with pre-existing renal impairment.

Monitoring of renal and eighth nerve function is recommended during therapy of patients with known impairment of renal function. This testing is also recommended in patients with normal renal function at onset of therapy who develop evidence of nitrogen retention (increasing BUN, NPN, creatinine or oliguria). Evidence of ototoxicity requires dosage adjustments or discontinuance of the drug.

In event of overdose or toxic reactions, peritoneal dialysis or hemodialysis will aid in removal of gentamicin from the blood.

Serum concentrations should be monitored when feasible and prolonged concentrations above 12 mcg./ml. should be avoided.

Concurrent use of other neurotoxic and/or nephrotoxic drugs, particularly streptomycin, neomycin, kanamycin, cephaloridine, viomycin, polymyxin B, and polymyxin E (colistin), should be avoided.

The concurrent use of gentamicin with potent diuretics should be avoided, since certain diuretics by themselves may cause ototoxicity. In addition, when administered intravenously, diuretics may cause a rise in gentamicin serum level and potentiate neurotoxicity.

USAGE IN PREGNANCY Safety for use in pregnancy has not been established.

See Clinical Considerations section which follows...

Schering

On all in-patient services...
in hospital-acquired gram-negative infections*

Garamycin®
gentamicin sulfate injectable
I.M./I.V.

40 mg. per cc.
Each cc. contains gentamicin sulfate equivalent to 40 mg. gentamicin

Also available:
GARAMYCIN® Pediatric Injectable, 10 mg. per cc.

GARAMYCIN® Injectable, brand of gentamicin sulfate U.S.P., injection, 40 mg./cc.
Each cc. contains gentamicin sulfate equivalent to 40 mg. gentamicin
For Parenteral Administration

WARNING
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USAGE IN PREGNANCY Safety for use in pregnancy has not been established.

INDICATIONS GARAMYCIN Injectable is indicated, with due regard for relative toxicity of antibiotics, in the treatment of serious infections caused by susceptible strains of the following microorganisms:

Pseudomonas aeruginosa, Proteus species (indole-positive and indole-negative), **Escherichia coli** and **Klebsiella-Enterobacter-Serratia** species.

Clinical studies have shown GARAMYCIN Injectable to be effective in septicemia and serious infections of the central nervous system (meningitis), urinary tract, respiratory tract, gastrointestinal tract, skin and soft tissue (including burns).

Bacteriologic tests to determine the causative organisms and their susceptibility to gentamicin should be performed.

*Due to susceptible organisms

Bacterial resistance to gentamicin develops slowly in stepwise fashion; there have been no one-step mutations to high resistance.

In suspected or documented gram-negative sepsis, GARAMYCIN may be considered as initial therapy. The decision to continue therapy with this drug should be based on the results of susceptibility tests, the severity of the infection, and the important additional concepts contained in the Warning Box. In the neonate with suspected sepsis or staphylococcal pneumonia, a penicillin type drug is usually indicated as concomitant antimicrobial therapy.

GARAMYCIN Injectable has been shown to be effective in serious staphylococcal infections. It may be considered in those infections when penicillins or other less potentially toxic drugs are contraindicated and bacterial susceptibility testing and clinical judgment indicate its use.

CONTRAINDICATIONS A history of hypersensitivity to gentamicin is a contraindication to its use.

WARNINGS See Warning Box.

PRECAUTIONS Neuromuscular blockade and respiratory paralysis have been reported in the cat receiving high doses (40 mg./kg.) of gentamicin. The possibility of these phenomena occurring in man should be considered if gentamicin is administered to patients receiving neuromuscular blocking agents such as succinylcholine and tubocurarine.

Treatment with gentamicin may result in overgrowth of nonsusceptible organisms. If this occurs, appropriate therapy is indicated.

ADVERSE REACTIONS

Nephrotoxicity: Adverse renal effects, as demonstrated by rising BUN, NPN, serum creatinine and oliguria, have been reported. They occur more frequently in patients with a history of renal impairment treated with larger than recommended dosage.

Neurotoxicity: Adverse effects on both vestibular and auditory branches of the eighth nerve have been reported in patients on high dosage and/or prolonged therapy. Symptoms include dizziness, vertigo, tinnitus, roaring in the ears and hearing loss.

Numbness, skin tingling, muscle twitching, and convulsions have also been reported.

Note: The risk of toxic reactions is low in patients with normal renal function who do not receive GARAMYCIN Injectable at higher doses or for longer periods of time than recommended.

Other reported adverse reactions, possibly related to gentamicin, include increased serum transaminase (SGOT, SGPT), increased serum bilirubin, transient hepatomegaly, decreased serum calcium; splenomegaly, anemia, increased and decreased reticulocyte counts, granulocytopenia, thrombocytopenia, purpura; fever, rash, itching, urticaria, generalized burning, joint pain, laryngeal edema; nausea, vomiting, headache, increased salivation, lethargy and decreased appetite, weight loss, pulmonary fibrosis, hypotension and hypertension.

DOSAGE AND ADMINISTRATION GARAMYCIN Injectable may be given intramuscularly or intravenously.

For Intramuscular Administration:

PATIENTS WITH NORMAL RENAL FUNCTION*

Adults: The recommended dosage for GARAMYCIN Injectable for patients with serious infections and normal renal function is 3 mg./kg./day, administered in three equal doses every 8 hours.

For patients weighing over 60 kg. (132 lb.), the usual dosage is 80 mg. (2 cc.) three times daily. For patients weighing 60 kg. (132 lb.) or less, the usual dose is 60 mg. (1.5 cc.) three times daily.

In patients with life-threatening infections, dosages up to 5 mg./kg./day may be administered in three or four equal doses. This dosage should be reduced to 3 mg./kg./day as soon as clinically indicated.

*In children and infants, the newborn, and patients with impaired renal function, dosage must be adjusted in accordance with instructions set forth in the Package Insert.

For Intravenous Administration:

The intravenous administration of GARAMYCIN Injectable is recommended in those circumstances when the intramuscular route is not feasible (e.g., patients in shock, with hematologic disorders, with severe burns, or with reduced muscle mass).

For intravenous administration, in adults, a single dose of GARAMYCIN Injectable may be diluted in 100 or 200 cc. of sterile normal saline or in a sterile solution of dextrose 5% in water; in infants and children, the volume of diluent should be less. The concentration of gentamicin in solution, in both instances should normally not exceed 1 mg./cc. (0.1%). The solution is infused over a period of 1 to 2 hours.

The recommended dose for intravenous administration is identical to that recommended for intramuscular use.

GARAMYCIN Injectable should not be physically pre-mixed with other drugs, but should be administered separately in accordance with the recommended route of administration and dosage schedule.

HOW SUPPLIED GARAMYCIN Injectable, 40 mg. per cc., 2 cc. multiple-dose vials for parenteral administration.

Also available, GARAMYCIN Pediatric Injectable, 10 mg. per cc., 2 cc. multiple-dose vials for parenteral administration.

APRIL, 1972
AHFS Category 8:12.28

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SLR 301

This seems to be the first case ever reported of an insulinoma in an 80-year-old patient.

Insulinoma in an Eighty-Year Old*

Howard A. Levy, M.D. and Elmer Grimes, M.D./Camden

This case is presented because of the occurrence of an insulinoma in an 80-year-old man with almost no premonitory history of illness. He is the oldest patient in whom it is reported. He had been a champion athlete in his youth and had enjoyed good health, except for a right herniorrhaphy thirty years before. He had always been free of polyuria, polydipsia, polyphagia and had not complained of muscle weakness, nausea, vomiting, or diarrhea. From his retirement at age 65 until the present he had been active, doing light jobs. Six weeks prior to admission, he had an episode lasting several hours in which he appeared confused, but did not present any paralyses. The episode cleared spontaneously with no residual or weight change. On the afternoon prior to admission, he suddenly became confused and wandered around aimlessly. There was some purposeless repetitive action with one episode of retching, accompanied by coarse tremors of the extremities. He seemed to clear somewhat in the evening, but before breakfast on the morning of admission, his strange behavior recurred. He began to shout incoherently and fell to the floor without losing consciousness. He was taken to the Emergency Department of the Cooper Hospital. Neurologic examination on admission revealed a tall, lean, well developed man who appeared conscious though drowsy and responded promptly to pain. Blood pressure was 140/80; pulse 80; respirations 16; temperature 98. Examination of his head, eyes, ears, nose, and throat were within normal limits. His neck was supple; the veins were not distended. There were 2+ carotid pulsations, which were equal; no bruits were detected. The chest showed equal expansion and normal breath sounds. The heart, abdomen, and extremities were normal. A firm, slightly enlarged prostate was felt on rectal. Neurologic examination was entirely normal except for somnolence. During the remainder of the day he continued to be lethargic, ate little, but appeared responsive. A lumbar puncture was done late in the afternoon. The dynamics appeared normal and 10 cc. of crystal clear fluid were sent for analysis. Prior to medical consultation, he suddenly became belligerent, disoriented, then drowsy, and finally comotose. Additional physical findings included a slight nuchal rigidity; a Grade II ejection sound at the aortic area; a sharp liver edge was felt 1-finger breadth below the right costal margin. The remainder of the examination was unchanged. Since the patient appeared slightly dehydrated, after preliminary laboratory studies were obtained, intravenous fluids containing glucose were ordered. About 700 cc. of 5 per cent glucose in distilled water were infused over a two-hour period. The patient then appeared to awaken and behave in a normal manner. At that time, a report of the spinal fluid sugar of 32 mg. per cent was obtained. Arrangements were made for frequent small feedings and laboratory investigation continued. His admission blood glucose was later reported as 30 mg. per cent and an additional random blood glucose was reported as less than 50 mg. per cent.

Fasting sugar on admission was 35 mg. per cent; BUN 22 mg. per cent; uric acid 5.6; creatinine 1.1; cholesterol 200; calcium 9.6; phosphorus 3.9; total protein 7.4 with 4.2 gm. per cent of albumin; sodium 145.5 mEq/l; potassium 4.1 mEq/l; chlorides 110 mEq/l; and CO_2 20.5 mEq/l. A two-hour post pran-

*From the Cooper Hospital, Camden, New Jersey.

dial blood sugar was 114. Fasting sugar on the next day was 30 mg. per cent. The following day it was 50. On subsequent days it was 48, 49, 49, 31, and 35. Results of a 5-hour oral glucose tolerance test are shown in the table.

TABLE I

Time	Blood Glucose	Urine Glucose	Plasma Insulin in microunits/ml. Patient Values	Normal Range
Fasting	below 50	neg.	22	4-24
½ hour	84	neg.		
1 hour	102	neg.	42	18-276
2 hours	150	neg.	30	16-166
3 hours	176	neg.		
4 hours	146	neg.	42	4-38
5 hours	94	neg.		

Orinase® tolerance test was carried out with the following precautions. The patient had a double Y-Type tubing. He was given the Orinase® with normal saline in one arm; in the other arm 10 per cent glucose and water was ready in case the patient had any untoward reaction. The Orinase® produced a profound reaction within fifteen minutes; the patient became completely disoriented, confused, belligerent, hostile, swinging his arms and legs about in a fashion similar to that seen on the ward at the time of admission.

The test was immediately stopped and 10 per cent glucose was rapidly infused along with an ampule of 50 cc. of 50 per cent glucose. There was prompt return to normal behavior on the part of the patient. His confusion in the morning on the ward coincided with his low blood sugar and responded each time to the patient's eating breakfast.

Chest x-ray showed some evidence of pulmonary emphysema and some fibrosis. No neoplastic disease was noted. The cardiac silhouette was not grossly enlarged. Skull films were not particularly remarkable.

Infusion urogram showed slight right nephroptosis, prostatic enlargement, but no other abnormalities. Gastrointestinal study showed no gross organic lesion of the upper gastrointestinal tract. No signs of a pancreatic mass were seen. An EEG, read by Dr. Daniel Silverman, was "normal for an 80-year-old. The prominent fast activity could well be due to sedative medication effect." Electrocardiogram showed sinus rhythm at a rate of 104 per minute; PR interval measured 0.16; QRS 0.08. The tracing was abnormal. Possibility of old posterior wall infarction was considered. Spinal fluid VDRL was negative; colloidal gold 00121000000; serum triglycerides 40; spinal fluid protein 48; 17 keto steroids were 5 mg. per cent in 24 hours; 17 hydroxy steroids were 3.5.

It appeared that the patient either had an insulinoma or had some other tumor producing insulin; the most common of these is a retroperitoneal sarcoma. At exploratory laparotomy we saw a 1.5 centimeter adenoma in the distal half of the pancreas. There was apparently no tumor in the head of the pancreas. Stomach, duodenum, and small and large bowel were all normal. Both adrenals were negative. The right kidney and left kidney were normal to palpation. The aorta and its branches felt normal. There was no evidence of retroperitoneal tumor. The liver was normal. The gall bladder contained no stones. The common duct was narrow and thin-walled and blue in color. The patient then had a resection of the tumor and the distal half of the pancreas to lessen the likelihood of missing small multiple tumors, which was carried out without particular difficulty, and the patient was returned to the intensive care unit. Some regular insulin was needed during the first postoperative day following a blood sugar report of 858. Blood sugars thereafter varied from 94 to 200. There was one reaction to insulin at the end of the post-operative day in which his symptoms reproduced those preoperatively and were solved by an injection of 50 per cent glucose. Post-operative recovery was uneventful except for the development of a wound infection. During the three weeks following discharge from the hospital several fasting blood sugars varied from 71 to 190. Eighteen months after discharge his behavior was described as normal and his fasting blood sugars were within normal limits for his age, without medication.

The pathologist reported a 7 by 2 centimeter portion of pancreas with a one centimeter tan

nodule. Sections through the uninvolved pancreas were unremarkable. The tumor was poorly encapsulated and showed some extension into the surrounding tissues. The cells were fairly uniform with little nuclear pleomorphism. Figure I shows a section of tumor and adjacent pancreas. A higher power view of the tumor cells is seen in Figure 2.

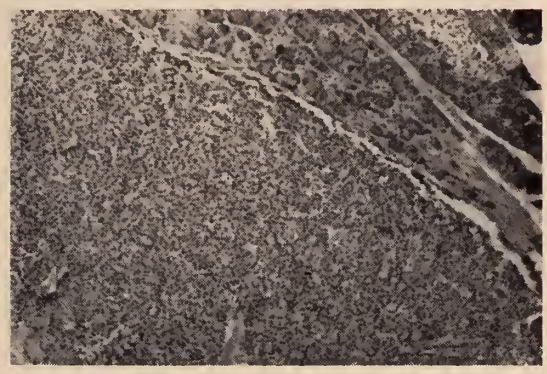


Figure I

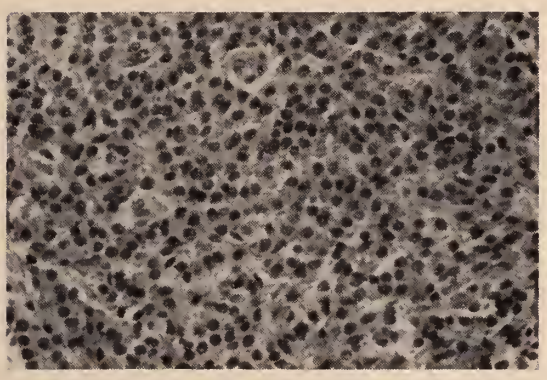


Figure II

Scholz *et al.*[1], in a review of 95 cases, found only one patient over 70 with a proved insulinoma. Hartsuck and Brooks[2] report proved tumors with hyperinsulinism in patients aged 66 and 70. Among others, both of these were symptomatic for periods of three months or more. Goldenberg, *et al.*[3] cited two patients with proved hyperinsulinism due to tumor in a patient aged 69; their hypoglycemic symptoms were of two years' duration. Symptoms in the remainder of their cases were of months to years duration.

Remarkable features in our case were the relative absence of premonitory symptoms and the advanced age of the patient, who is now two years post-surgery at age 82, with no signs of abnormal behavior and high-normal blood sugars. Our inability to demonstrate a significant abnormality in blood insulin levels during a glucose tolerance test is unexplained.

References

1. Scholz, D. A., ReMine, W. H. and Priestley, J. T.: Staff Meetings of the Mayo Clinic, 35:19 (1960)

2. Hartsuck, J. M. and Brooks, J. R.: *Am. Jour. Surg.*, 117:541 (1969)

3. Goldenberg, V. E., Goldenberg, N. S., and Benditt, E. P.: *Cancer*, 24:620 (1969)

300 Broadway

Electronic Reporting of X-rays

Analyzing and reporting x-rays is now a matter of seconds at the Johns Hopkins Medical Institutions, thanks to a special technic. The heart of the method is an IBM 2760 optical image unit, linked to a system/370 computer and a printer. The radiologist calls up various frames of a film strip on the computer terminal, and touches any one of a series of standard terms, or drawings of parts of the body with an electronic probe. This action automatically enters the information into an IBM system/370 computer, which immediately produces a printed report of the x-ray. The standard method in radiology is to examine x-rays and dictate the findings which are later transcribed. The new system, however, reduced errors and produces typed reports in a matter of seconds. The system was developed jointly by the Johns Hopkins department of radiology and biomedical engineering, and the Bureau of Radiological Health of the U.S. Public Health Service.

Special Article

Practice of Medicine by Hospitals*

The growing influence of hospitals on individual *medical* care, over and above hospital care, has a potential for harm. The hospital is an incorporated body and is prohibited from practicing medicine *per se;* yet, in truth many hospitals are actually doing so. In fact, for some years, resolutions have been presented in several state medical societies asking a legal test of this growing tendency by hospitals. Recently a challenge of this policy in California led to an opinion by the attorney general of that state which, in effect, contravenes such practice by hospitals.

In New York State, medical practice by hospitals has been condoned so long and the policy is so deeply established that it will be difficult to reverse the tide at this juncture. Even if a restraining injunction were obtained, we would gain little and that would be temporary. The legislature might then take action which would expand the powers of hospitals and make the practice of medicine by them legal, and this would be final. We lost this fight long ago when some members of organized medicine denied the plea by pathologists that diagnostic frozen sections not be considered a hospital service as such, but rather a personal consultative service by the pathologist, as an individual practicing physician. When Blue Shield took this action at the behest of our surgical colleagues and the frozen section was made a hospital service, paid for by Blue Cross and not by Blue Shield, this fight was lost. Pathologists then prophesied that this usurpation of a personal service to the patient would extend to other services. This has come to pass; it was first the electrocardiogram, and then the x-ray, and then what we have today—all branches of surgery and medicine. Now this encroachment is an established fact, and it will take a basic revolution to reverse this *fait accompli.*

Probably the best medical care today can be obtained in large university and community hospitals, with their large staffs; many full-time hospital-based physicians committed to patient care, teaching, and research in proper balance; large, capable, and well-supervised intern and resident staffs; and a well-organized teaching and training program. But its potential for harm has several facets. There is the singular disruption of the meaningful physician-patient relationship. For the personal patient-physician interrelation, hospital practice of medicine substitutes a large organization. The physician becomes a cog on the wheel; the danger to the independence and character of the hospital-based physician has been detailed elsewhere. The patient often becomes a lost soul in the shuffle and the recipient of more science and less empathy.

In effect a complete reorganization of medical care has resulted, with the hospital central to it all. An incidental result has been a change in the meaning of "informed consent" with an inherent distortion of the truth. This is particularly true as to exactly who operates on the patient. As a result, aberrations develop in our ethical code. This lowers the stature of the physician and his professional status.

A patient is told by her private physician that her cataract is ripe and she contracts with him to have it removed. A patient has appendicitis, and her physician consults with her surgeon, who confirms the diagnosis. The patient agrees to be operated on by the surgeon, whom she may know quite well. Whether each patient will be operated on by the individual surgeon of her choice is now a moot question, despite the specific contracts. The better the hospital, the more likely it is that somebody else will operate. The reason is that the hospital has a good teaching and training program; as a result, more likely than not, each operation will be turned over to the house staff, usually a senior resident.

*Abstracted from an editorial in the February 15, 1973 issue of the *New York State Journal of Medicine.*

This used to be true only for ward patients, but it is now common practice for the resident to operate on private patients too. More than just subtle pressure is brought to bear on the surgeon, full or part-time, to allow his own private patient to be included in the teaching program. This is practically taken for granted for the full-time staff. The physician submits gracefully if he wishes to remain on the staff. The contracting physician has confidence in the resident. Sometimes he has so much confidence that he may not enter the operating room, or he may leave soon after the operation starts, leaving the rest to the resident. The resident dictates the findings and the procedure of the operation, and the private physician signs the typed dictation and, thus, becomes the surgeon of record.

The crux of the problem arises from the fact that the arrangements between the patient, the private physician, and the resident in the hospital remain *sub rosa*. The patient, the most important person, is not informed of the whole story—that is, not really told what is going on in the operating room. Of course, a patient who is unconscious during the operation, cannot know what actually happens in the operating room.

What is related thus far is close to "shadow surgery"—once a heinous offense. Some have equated the present abuse to this "ghost" surgery of old, although now mitigating circumstances exist and the practice is much less reprehensible, because there is less danger to the patient. In the old days "ghost" surgery developed because inexperienced physicians also sought training and experience by this short cut. The procedure was for a physician to contract with a patient to perform a surgical procedure. He would engage a surgeon, often a capable one, to assist him or do the procedure. This was done without informing the patient. The helping surgeon would remain in the shadow; the original physician seeking training would be the physician of record and collect the fee. The original physician gained knowledge, training, and experience; in time he often even became a good surgeon. Here, too, these private professional arrangements strained and distorted the truth. The questions now are: Does our present most commendable desire to train the house staff justify stretching the truth as we now do? Why cannot the patient be told the truth? If this cannot be done, then there is something wrong with what we do.

If the patient is not told all, then veracity is lacking. The fact that the contracted fee goes to the hospital, and not to the physician directly, does not alter the fundamental impropriety of such arrangements. The salary paid the full or part-time physician often relates to such fees, directly and indirectly. Nor does the need for the use of private cases for the residency training justify such liberties with the truth. The transfer of actual performance of the operative procedure to the resident has always existed with "free" ward patients. In the past this occurred to a much lesser extent with private patients, and always there was continued direct supervision. It is the loss of the ward case—the free case—because of the widespread insurance coverage that now prevails, and the advent of Medicare and Medicaid, that has crystallized this problem. These innovations for payment of medical care have taken nearly all patients out of the free wards into the private category. Medical care has been defined as a right, and practically all patients now can choose their own private physician.

If the contracting surgeon and the resident are both covered by the hospital for malpractice insurance, the situation may be less complex than if the surgeon has his own insurance. Who is responsible for the defense and for any award in the event of a suit? Does not the added problem of "breach of contract" exist? All this promises to make the already most difficult problem of malpractice worse than ever.

While we are wrestling with these problems, we really should also set the record straight about other hospital financial matters. The Blue Cross formula for reimbursement to hospitals for per diem care now includes a factor

for the number of full-time physicians. If these physicians take care of patients and do administrative chores full time, no one can find fault with such payment to the hospital. However, when full-time men spend a good deal of their effort doing research and teaching and traveling, attending meetings and taking sabbaticals, then the question of why the patient should pay for all this in their premium structure warrants serious consideration. All this is one reason for skyrocketing per diem hospital costs to the patient, reflected in ever-increasing premium rates. Should not the salaries for physicians in research only, and of all technical personnel not involved in patient care, as well as supplies and equipment for research, be covered by other means than the patients' fees? Research and training grant support would seem more appropriate.

One should admit that the line between research and service is not a sharp one and what is research today is service tomorrow, with great benefits to the patient, and there often is a transitional period when they both overlap. Also, research is a vital stimulus to better patient care. One might ask similar questions about the cost of teaching and training problems. All of these activities are needed in a hospital, in fact, are imperative; but should not the sources for such endeavors be stated specifically, openly, and honestly for all to know and to see? Surely, the proper bookkeeping could be done with or without computers.

If truth does not prevail in the hospital, then we are building all medical care and hospital practice on quicksand, in lieu of a firm and stable foundation. Both the ace of spades and the king of diamonds are good cards; both can win, but they are not identical. The time has come for a spade to be called a spade in all of our hospital-physician-patient relationships; it is time that the facts be made fully known; it is time, indeed, that the present situation be corrected by an appropriate, permanent solution, which will be beneficial to patients, physicians, and hospitals. We may be pleasantly surprised. A properly informed and fully reassured patient may agree to having the resident operate. Who shall collect the fee can also be resolved in a satisfactory, ethical manner. To continue as we are is wrong. There must be no subterfuge. Progress always makes change imperative. The required adjustments and changes must be made; there is no alternative. The truth, and nothing but the truth, must prevail in hospital practice, as it must everywhere else in medicine.

New President of NJMWA

Satty Gill Keswani, M.D., of Livingston, has been elected President of the New Jersey Medical Women's Association. She specializes in infertility and gynecologic endocrinology. Dr. Keswani was born in India and came to this country in 1957, after having received her medical degree from the Lady Harding Medical Women's Association. She came to Margaret Hague Maternity Hospital in Jersey City, where she completed an additional two years of residency and then became a Research Fellow in infertility at the same hospital. Following this she was Research Fellow in infertility and gynecologic endocrinology at New Jersey Medical College and is now director of reproductive physiology at the Newark City Hospital.

Dr. Keswani is in private practice in Livingston and has served in various capacities in the New Jersey Medical Women's Association.

Other recently elected officers are Rita R. Newman, M.D., President-Elect; Bernardine Drewniany-Killeen, 1st Vice-President; Barbara M. Salomone, M.D., 2nd Vice President; Marie R. Badaracco-Apolito, Treasurer; Anna M. Seebode, M.D., Recording Secretary; and Coralyn Flad, M.D., Corresponding Secretary.

NEW JERSEY DOCTORS' NOTEBOOK

Address of Retiring President*

William J. D'Elia, M.D.

One year ago you conferred upon me the honor and the responsibilities of the Presidency of The Medical Society of New Jersey. It is a great privilege to be President of this illustrious Society, and I thank you for that privilege and for the opportunity to serve during the past year. I realized there was much to be accomplished; this is a fast changing world, particularly in the delivery of health care and the practice of medicine. One year does not afford ample time to accomplish much, or initiate particular projects and guide them to their final execution. Even though the new President is immediately caught up in the whirl of activities and maintains a crowded pace, the year flies by all too swiftly. But there are benefits to the system, regular turnover allows for fresh leadership, new ideas, additional input and, certainly, continued progress.

I have had the opportunity, as you know, to meet with many members in my travels throughout the State. I have learned much about this State, but most important, I have learned about our Society, our members, their ever-increasing concerns, their devotions, and their dedication to the delivery of medical care.

The concerns are many and revolve around such problems as the specter of increasing bureaucracy, the trials, tribulations, and frustrations of dealing with government and its fiscal intermediaries, and the creeping encroachment in the private practice of medicine. They also embrace the development of the foundation concept for medical care, continuing physician education, legislation, professional liability, national health insurance, relationship of the hospital boards and the medical staffs, communications generally, and many, many more.

We have debated these issues on many occasions, and have had repeated meetings with various governmental representatives. We have attempted to study and analyze the problems. We have negotiated, particularly with the State Medicaid staffs, and I feel that some progress has been made. There is much to be done, there are many avenues of approach.

Last year we initiated the development of a New Jersey Foundation for Health Care Evaluation. Our members have expressed considerable interest; progress to date has been exceptionally good. We have an industrious steering committee whose members represent each county, and the input has been most encouraging. Physicians are concerned about the quality of medical care, the cost, the controls through such technics as utilizations and peer review, claims review, and so forth. This is one step in our answer to the questions concerned with the health care critics in this country. There is much more to be done, we have much to learn and understand. PSRO as embodied in Public Law #92603, formerly known as HR #1, is now the law of the land. However, it offers the professions the best opportunity to rise to the challenges of leadership and to demonstrate it can bring about a balance between quality and cost in our own health systems. The Medical Society of New Jersey has been working on peer review for years; guidelines have been developed and presented.

Continuing medical education was brought to a focus in a resolution that precipitated much debate in the House last May. The responsibility for competency of our members is ours; it is imperative that we take the lead in this field. The Medical Society is cognizant of the trends being established both in the

*Delivered before the 1973 House of Delegates, MSNJ, second session May 13, 1973, Atlantic City.

voluntary and legislative fields. Physicians must appreciate the necessity of participation in approved programs of continuing medical education and make every effort to understand the requirements. Only by this action can we demonstrate our leadership. Education mandated by legislation is not the answer and leaves much to be desired. In this respect one notes, in the preliminary report of the President's Commission on Medical Malpractice, one of the recommendations called for a revision of state licensure laws to require periodic re-registration of physicians, dentists, nurses, and other health care professionals, based upon proof of regular approved continuing medical education. It also suggested periodic clinical re-evaluation and re-certification of physicians who are certified by a national specialty board.

The problem of medical malpractice continues to present with greater frequency. Physicians are seriously disturbed by this problem, the cost of professional liability continues to increase, as the quality of care continues to improve. Our loss control program, now in its 14th year, has contributed much. In New Jersey there has been no dramatic increase in the number of claims or suits in recent years. However, the average settlement value for cases of liability has increased, just as it has in automobile or other categories of liability insurance. The Medical Society of New Jersey's program has basically followed its present format since 1959. It represents a coordinated effort at the State and county levels for providing proper and adequate insurance coverage at premiums realistic to the risk, along with participation of the Medical Society and in determination of the medical liability claims and suits. The involvement of only well-qualified companies and specialization of their staff in professional liability investigation, plus the use of only the most qualified legal counsel has led to a program which today insures over 90 per cent of our members in active practice. I strongly recommend that you read the current reports of the President's Commission on Medical Malpractice.

In an attempt to develop and improve lines of communication and liaison, we have had important and constructive meetings with allied health care professionals and State representatives. We have emphasized our interest and the fact that we should have a voice in all matters pertaining to the delivery of medical care, the agencies concerned with insurance, public health and health education, medical education, legislation, and hospital functions, with particular attention to the administration and medical staff coordinations. We met with officers of the New Jersey Hospital Association and many items of common concern were evaluated. There is no alternative except full cooperation down the line if we are to continue to deliver the best medical care possible.

In legislative activity our Council on Legislation regularly studies and evaluates each new bill having medical interest and recommends appropriate action by the Society. However, all of us are involved. Contacts on the local level must be developed and reinforced, most effective action is by direct contact; all physicians are encouraged to build lines of communication.

In a recent study of the public's opinion of credibility by occupation conducted by two University of Connecticut professors, physicians headed the list and politicians and used car salesmen were at the bottom. We have the public confidence, and we should utilize it to the fullest extent in all endeavors. We have a responsibility in all aspects of health care and must become leaders of community affairs, such as drug control, alcoholism, housing, ecology, poverty, communicable diseases and so forth. At State level we are meeting with all of the leaders of the various professional organizations representing the providers of health care services to develop closer lines of communications, to develop understanding of each others' problems and to provide leadership. There is a great need for unity, unity of purpose, strength, and number in support of the practitioners in each allied health program today. Essential to a smooth operation

and coordination is adequate communication. The Society has thoroughly studied and investigated most of the issues with the expenditure of much time and expense. All component societies are regularly informed of all of the activities of our many councils and committees, and particularly the actions of the Board of Trustees. Reports are submitted to *The Journal,* the *Newsletter,* and by direct correspondence. It is our responsibility to disseminate information, however, it is the responsibility of those to whom it is addressed to read and digest the reports and to take indicated action. We have initiated a dialogue with the representatives of the major wire services, radio, television, and newspapers, to develop ongoing projects and understanding.

Membership in the Medical Society is slowly increasing, however, there are 357,000 physicians in this country, of this number 224,000 are members of county and state societies, 133,000 do not belong. Every physician, every component society should contact these physicians, arrange meetings, and sessions. We have much to offer; only a united profession devoted to medicine's high ideals can meet the above concerns head-on. Our Society is becoming more and more responsive to the needs of the members. I anticipate closer cooperation and communication, more intimate understanding of each other's problems and concerns, easy access to assistance in all respects. The Medical Society of New Jersey is a ready source of guidance and information to its members relative to all matters of its professional concern. You must remember that membership in the Society provides a form for the expression of concepts developed by individual members and implementation of the same. The Society, 8,000 strong, can present a persuasive force in medical affairs. It is, furthermore, totally physician-controlled and managed. If ever we need each other, the time is now.

I urge you to take an active part and if you seek office, council, or committee appointment, accept with an understanding of the tremendous responsibility, sacrifices, and effort demanded of you.

I sincerely enjoyed this past year, the experiences and the associations that I have had with the physicians of New Jersey. I have been repeatedly impressed with the amount of time, work, and devotion extended by the members of our committees and the officers, at great personal sacrifice, and the devoted efficiency of the staff. Your cooperation and assistance were gratefully received and were deeply appreciated.

Trustees' Minutes

April 15, 1973

A regular meeting of the Board of Trustees was held on April 15, 1973, at the Executive Office in Trenton. Detailed minutes are on file with the secretary of your county medical society. A summary of the significant actions follows:

Ralph K. Hollinshed, M.D. . . . Observed a moment of silent prayer in tribute to the memory of Dr. Ralph K. Hollinshed, 151st President of MSNJ, who died on March 27, 1973.

. . . Adopted the following memorial resolution and authorized a contribution to the Medical Student Loan Fund in Dr. Hollinshed's memory.

RALPH KING HOLLINSHED, M.D.
(1884-1973)

Whereas, after a long and distinguished life as gifted physician and exemplary humanitarian, Ralph King Hollinshed, M.D., our esteemed and beloved colleague, has been called to his eternal reward; and

Whereas, as former secretary and past president of

the Gloucester County Medical Society, member and former President of The Medical Society of New Jersey, and member of the American Medical Association and of the American College of Physicians, Doctor Hollinshed was a life-long worker for the advancement of organized medicine and the elevation of its ideals; and

Whereas, by his gentle, compassionate, and expert services as an outstanding physician, Doctor Hollinshed proved himself as one who loved his fellowmen and was in consequence by them beloved; now therefore be it

RESOLVED, that The Medical Society of New Jersey, honoring Ralph King Hollinshed in death as in life, records its profound grief at his passing; and be it further

RESOLVED, that a copy of this resolution be spread upon the minutes of this meeting and that another copy, suitably prepared, be presented to his bereaved family in token of heartfelt sympathy.

CMDNJ Students at MSNJ Annual Meeting . . . Directed that invitations be sent to the presidents of the local SAMA chapters of the two New Jersey medical schools inviting two students from each school to attend MSNJ's annual meeting as guest observers, with expenses, up to $150 per student, paid by MSNJ.

Commission on Blood Banking . . . Directed that Harry B. Lockhead, M.D., MSNJ's liaison representative with the New Jersey Blood Bank Association, be authorized to attend an open hearing of the Commission on Blood Banking as MSNJ official representative.

Note: Hearing is scheduled for May 25 in Newark, and Dr. Matthew E. Boylan will also attend.

Council on Legislation . . . Approved, as amended, the report of the April 12th meeting of the Council on Legislation, including the contained recommendations:

Current State Legislation

S-2078 —To remove exclusion of agricultural pursuits from requirements for posting State child labor abstracts; to limit farm employment of 14 and 15 year old children to periods not interfering with school and health; to prohibit farm employment of 12 and 13 year old children; to prohibit employment of minors, ages 14 and 15, near power driven machinery and to set maximum hours of farm work for children as 8 hours. *APPROVED*

S-2101 —To provide for supervision of projects for prevention of blindness by the Commission for the Blind and to provide that funds shall be made available on a project basis for programs conducted by the Department of Health and organized health services groups. *NO ACTION*

S-2109 —To include central services facilities operated by, rather than serving, institutions within definition of "health care facility" in the Health Care Facilities Planning Act. *APPROVED*

S-2121 —To provide that with regard to an abortion or the performance of a sterilization procedure, written consent must be obtained from the spouse, in the case of a married minor, or from the parent or legal guardian in the case of an unmarried minor. *TABLED*

S-2122 —To provide that the act concerning the practice of medicine and surgery shall not apply to the performance of any act at the direction and supervision of licensed physician by a person working under a job description approved by the Board of Medical Examiners and possessing qualification established by the Board. *APPROVED*

S-2129 —To provide that no debris shall be placed into any stream, upon any stream bank or into the Atlantic Ocean or any of its bays or kills and to provide penalties. *APPROVED*

S-2135 —To provide that any hospital with an accredited coronary care unit may apply to the State Department of Health for approval to conduct a pilot program in emergency mobile intensive care procedures and rescue acts in cooperation with voluntary health agencies and to appropriate $200,000. *APPROVED*

S-2148 —To establish a Health Maintenance Organizations Act, to provide alternatives for health care delivery, to provide for establishment and certification of health maintenance organizations and to establish the duties and responsibilities of the Commissioners of Health and Insurance in supervising these organizations. *APPROVED*

S-2158 —To revise the statutory law with respect to consent by minors to performance of hospital, medical or surgical procedures or treatment. *TABLED*

S-2194 —To require the State Department of Health to test all newborn infants for phenylketonuria. *ACTION DEFERRED*, pending further information from the New Jersey Chapter of the American Academy of Pediatrics.

Note: The position indicated on S-2194 is as amended by the Board. The Council had recommended "disapproved" because all children are not susceptible to the malady, and also because the present testing procedure is not precise or dependable and would present greater hazard for more children than would the limited incidence of phenylketonuria.

S-2200 —To provide that fetal weight of 500 or more grams shall require a death certificate and a burial or removal permit if the gestational age is questionable. *APPROVED*

S-2201 —To provide that the Department of Health shall prepare lists of family planning clinics

in the State together with birth control information pamphlets for distribution by marriage licensing officers. *APPROVED*

S-2213 —To provide that no person shall be required to perform or assist in an abortion or sterilization and no hospital or other health care facility shall be required to provide such services or procedures. *APPROVED*

S-2214 —To define and include "abortion service facility" under the law concerning licensing and regulation of health care facilities. *APPROVED*

S-2226 —To establish in the Department of Health a program for the identification, eradication, and treatment of Beta Hemolytic Streptococcus infection. *APPROVED*

S-2230 —To require health care facilities in collaboration with the municipal disaster control director and local fire officials to formulate fire and disaster operation plans and to conduct drills at least monthly at irregular intervals. *APPROVED*

SCR-2022—To memorialize the Congress of the United States to amend the Constitution of the United States to effectuate protection of unborn humans. *NO ACTION*

A-2091 —To provide that information in the central registry of the Bureau of Children's Services shall be made available to social caseworkers, probation officers, and members of law enforcement agencies determined to have a professional interest in the control of child abuse. *APPROVED*

A-2201 —To provide that a person who shall destroy an animal except by a method of euthanasia generally accepted by the veterinary medical profession shall be guilty of a misdemeanor. *APPROVED*

A-2240 —To provide that any hospital having an accredited coronary care unit may apply to the Department of Health for approval to conduct a pilot program in emergency mobile intensive care procedures and rescue acts in cooperation with voluntary health agencies and to appropriate $200,000. *APPROVED*

A-2241 —To create a State Board of Acupuncture in the Division of Consumer Affairs to regulate the practice of acupuncture and to require licensing. *DISAPPROVED, WITH ACTIVE OPPOSITION IF THE BILL MOVES,* because this bill would license individuals to practice acupuncture, even though the scientific validity of acupuncture has not been satisfactorily established. Moreover, it would jeopardize the health and welfare of the public by failing to require that licensed acupuncturists meet all the qualifications imposed by the State upon individuals who practice medicine, since obviously acupuncture would fall under the definition of medical practice as set forth in R.S. 45:9-1 et seq.

Note: The position indicated on A-2241 is as amended by the Board. The Council had recommended "disapproved."

A-2256 —To provide that boards of education shall identify children between the ages of 4 and 21, in place of 5 and 20, in public schools who cannot be properly accommodated through school facilities usually provided because of handicaps. *APPROVED*

A-2269 —To provide that no licensed chiropractor, not registered to use physiotherapy modalities, shall use such modalities. *APPROVED*

A-2276 —To provide that no hospital or clinic shall be required to provide facilities or services for the performance of an abortion other than for an emergency case. *APPROVED*

A-2277 —To require the certification of diagnostic information for the use of the county court at final hearings on commitment of patients in mental hospitals where continued care and treatment beyond a 20-day temporary commitment is recommended. *APPROVED*

A-2291 —To delete the word "willfully" in R.S. 9:6-1 concerning the abandonment, abuse, cruelty and neglect of children. *APPROVED*

A-2294 —To authorize the Department of Health to establish programs of rehabilitation for drug dependent persons, to provide facilities and to provide for licensing operators of such facilities. *DISAPPROVED,* because the legislation is unnecessary in view of the fact that the requested authority already inheres in the Department of Health and is being exercised through the Department's Division of Drug Abuse Control.

A-2315 —To require the Board of Pharmacy to compile a list of the 100 most used prescription drugs and to require drugstores to post the prices for such drugs. *APPROVED*

A-2317 —To provide that the failure of a doctor, dentist or other person in licensed medical practice to disclose to a patient the cost of services paid to laboratories for tests shall be a misdemeanor. *APPROVED*

A-2321 —To establish the "New Jersey Poison Prevention Packaging Act" authorizing the Commissioner of Health to regulate the packaging of household substances dangerous to the health of children. *APPROVED*

A-2322 —To provide the Commissioner of Health the powers to regulate the labeling of hazardous substances and of hazardous toys; to provide the Commissioner power to remove from commerce hazardous substances and toys that are inadequately labeled or misbranded. *APPROVED*

A-2327 —To require continuing education for registered optometrists in order to qualify for renewal certificates. *NO ACTION*

A-2329 —To provide that hospital patients shall be entitled to receive, upon request, a free copy of the total bill for services rendered. *APPROVED*

A-2349 —To require that a child may be placed for

adoption through a person, firm, corporation, association or agency approved by law and not by the parent. *APPROVED*

A-2361 —To require drivers of and passengers in motor vehicles equipped with seat belts to properly utilize such restraints and to permit the Director of Motor Vehicles to grant exemptions. *DISAPPROVED*, because it is discriminatory and unfair and would impose upon the public at large restrictions which have not yet been imposed on vehicles of public transportation.

Note: The position indicated on A-2361 is as amended by the Board. The Council had recommended "Approved."

A-2365 —To provide that any child who is afflicted with the disease of sickle cell anemia shall be eligible for the care and treatment provided for crippled children. *APPROVED*

To be noted and filed.

ACR-2036—To create a commission to study the procedures for licensing persons engaged in the medical, dental and nursing professions, the shortage of adequate numbers of health care personnel and to consider the need for retesting.

ACR-2045—To create a commission to study the need for and the cost of facilities to accommodate convicted narcotic users and pushers and to review the narcotics law and recommend changes.

Liaison Representative from Mental Health to Legislation Councils . . . Approved a recommendation from the Council on Mental Health that the Board of Trustees grant permission to the Council on Mental Health to appoint a liaison representative from that Council to attend meetings of the Council on Legislation.

Note: Dr. Arnold Kallen has been named liaison representative.

Psychiatrist as Commissioner of Department of Institutions and Agencies . . . Disapproved a recommendation from the Council on Mental Health that if and when a vacancy occurs in the Commissionership of the Department of Institutions and Agencies, the Governor be petitioned to appoint a psychiatrist, because it is inconsistent with the 1970 House of Delegates' action which urges the development of a separate department of mental health with a board-certified psychiatrist as a commissioner.

Finance and Budget Committee . . . Approved the report of the Committee on Finance and Budget, which will be included in the Transactions Issue of *The Journal* (July) and is not preprinted here, and, with the exception of #7, the following recommendations:

1. That the Board of Trustees reconsider its action concerning a higher per capita registration fee for the Annual Meeting (designated at $5 by November 19, 1972 action of the Board).

2. That the 1974 assessment again include a $3.50 and $2.50 per capita assessment designated for each member's *Journal* subscription rate and Annual Meeting registration fee, and that the full amounts realized as of May 31 be applied in 1974, as well as in 1973, and that the Committee on Finance and Budget be called upon to review these allocations annually.

3. That the Committee on Finance and Budget be supplied a list of those given complimentary tickets to the 1973 Annual Dinner-Dance, and that no action be taken at this time on the recommendation to charge expenses of complimentary dinner-dance tickets to the President's or Board of Trustees' accounts, as originally submitted by the Standing Committee on Annual Meeting.

4. That the Board of Trustees approve the employment of Mr. Martin H. Johnson and Mr. Joseph C. Lucci as Executive Assistants.

5. That the Executive, general staff, Journal, and Convention Manager salaries and salary taxes set forth in the budget be approved.

6. That the Board of Trustees refer to the Executive Committee for determination of the method to be used to reimburse Presidential Officers.

7. That the Board of Trustees review its policy, currently in effect, of sending all alternate delegates to AMA meetings, and that, if that policy is to be continued, alternate delegates be given first preference in the process of nominating and electing AMA delegates.

The Board voted to reaffirm the existing policy of authorizing the attendance of all delegates and alternate delegates to AMA Annual and Clinical Conventions.

8. That the Board of Trustees authorize that the sum of $23,000.00 be paid to the Academy of Medicine in May 1973 rather than the full $35,000.00 originally made available under the 1972-73 budget.

9. That up to $20,000.00 be included in the budget of the Committee on Medical Education for 1973-74 for post-graduate educational programs and activities, and that the Committee, with the concurrence of the Board of Trustees, be empowered to expend up to this amount in the course of the administrative year, on the basis of need reflected in the 1973-74 fiscal report to be submitted to the Committee on Finance and Budget *by the Academy of Medicine*. (Italics indicate amendment by the Board of Trustees.)

10. That the 1974 per capita assessment be set at $90; that the indicated transfer from surplus be made

($23,112.67); that of the $90 per capita assessment, $3.50 and $2.50 be designated respectively for the member's *Journal* subscription and Annual Meeting registration; and that the full amounts realized as of May 31, be applied in 1974 as well as in 1973.

11. That no change (in minimum General Fund balance) be made at this time; that the Committee on Finance and Budget be empowered to review the General Fund balance in the Spring of 1974 with possible consideration of raising the limit to $200,000 from the current minimum of $150,000.

12. That an assessment be set at $20 per capita for the affiliate and associate member.

13. That the Board of Trustees approve a special per capita assessment of ten dollars ($10) to serve as a one-time grant to the New Jersey Foundation for Health Care Evaluation; that this special per capita assessment be set in addition to, and not as part of, the budgetary assessment; and that both be paid at the same time.

Nominations to State Board of Medical Examiners . . . Directed, in conformity with the provisions of the Medical Practice Act, that the following list of names be submitted to the Governor as nominees to fill vacancies on the Board of Medical Examiners, with the incumbents listed first as the preferred nominees and the others in alphabetical order:

Term expiring April 24, 1973
Anthony J. Balsamo, M.D., Bayonne
John J. Crosby, Jr., M.D., Jersey City
William Greifinger, M.D., Belleville

Term expiring May 19, 1973
Thomas C. DeCecio, M.D., Cliffside Park
Richard B. Berlin, M.D., Englewood
Robert E. Verdon, M.D., Cliffside Park

Term expiring May 19, 1973
Rudolph T. DePersia, M.D., Woodbury
David Eckstein, M.D., Trenton
John R. Wolgamot, M.D., Moorestown

Decision on Chiropractic in Bergen County . . . Directed that all legal expenses, if any, from the litigation in an alleged anti-trust violation (Bergen County Medical Society is being sued by the chiropractors for excluding them from the Fairlawn Jaycee's Health Fair) be borne by MSNJ rather than by the Bergen County Medical Society and that all component societies be made aware of this action.

Congress on Medical Ethics . . . Authorized the attendance (with expenses paid) of Albert F. Moriconi, M.D., at the AMA sponsored National Congress on Medical Ethics, to be held April 26 to 28 in Washington, D.C.

CMDNJ Notes

Stanley S. Bergen, Jr., M.D.
President, CMDNJ

The Growing Dental School

In recent years, the dental profession has undergone considerable growth and change in response to increasing demands for better and more readily accessible dental care.

The College of Medicine and Dentistry of New Jersey—New Jersey Dental School—has responded to the trends in dentistry with significant advances in the past three years under the leadership of Dean Ian C. Bennett, D.D.S.

At present, the dental school is capable of graduating 64 dentists a year, After it is relocated to the College's new facility in Newark (a move which is scheduled to begin in July, 1974), the school is committed to doubling the size of its classes.

A conscious effort is also being made to recruit students from specific groups including racial minorities and women. A recent grant from the Robert Wood Johnson Foundation, providing funds for scholarships and loans for qualified minority students, has allowed great strides in this area. The New Jersey Dental Careers Consortium, which began to take shape this year at the dental school (in cooperation with the College of Dentistry of Fairleigh Dickinson University under a National Urban Coalition grant), will provide the means for attracting qualified students to dental careers.

Final goal of these recruitment efforts is to return qualified professionals to the inner city areas.

The dental school faculty has also grown in the past three years, expanding from 112 in 1969 to 160 in 1973. The greatest advance has been the proportion of full-time faculty. In 1969, there were only fourteen full-time faculty members at the dental school; at present, there are 62.

The dental school faculty has been drawn from a nationwide pool possessing a great variety of talents. The breadth of experience is demonstrated in the number of faculty members with double degrees and education beyond their dental degrees.

Consistent with changes both in dental practice and dental education, the New Jersey Dental School has adopted a number of new policies and programs in the past three years. In July, 1971, the New Jersey Dental School became one of the first in the nation to adopt a three-year calendar, four academic-year curriculum. To accomplish this, the school functions also during the summer. The new program maintains the quality and quantity of education offered, while allowing the student to be graduated a year earlier.

The three-year curriculum brought with it the expected difficulty of accelerating students who began on a four-year program, but because of the over-all advantages of the program, the dental school administration was able to convince the New Jersey State Dental Board to schedule special examinations for the students who had to be graduated at mid-year. The final transitional class will be graduated on September 1, 1973. The students themselves have expressed less dissatisfaction than expected with the change-over, since they have felt that the opportunity to begin their dental careers early more than compensated for odd graduation times.

The modern trend toward group dental practice contrasted with private solo practice has precipitated two new programs at the dental school.

TEAM—Training in Expanded Auxiliary Management—a project funded by an HEW grant and supervised by Allan Schneiderman, D.D.S., M.P.H., will train dental students to supervise larger numbers of auxiliaries and to plan office facilities to allow for increased personnel. A new clinical pilot program is also aimed at developing an example model of the concept of group practice, allowing students to work as a group, rather than as individuals.

The dental school has also placed a greater emphasis on its relationship with the communities it serves by establishing the Office of Community Affairs, directed by Robert Thompson, D.D.S., M.P.H. The new office was founded in the effort to separate the school's community outreach efforts from the educational function of the department of community dentistry, allowing Dr. Thompson to devote full time to state and local programs.

In March, 1973, the dental school accepted its first class in a new dental assisting program. The program was established both to fill the ever-increasing demands for well-trained dental auxiliaries, and to create opportunities of employment for young men and women throughout New Jersey.

This column marks the conclusion of the first twelve months of publication of "Medical College Notes" in *The Journal* of The Medical Society of New Jersey. Both personally and for the members of the College faculty and staff who have shared in the writing and editing of this column, I thank the Society and the editors of *The Journal* whose patience and assistance has made the preparation of this column enjoyable. Hopefully, by the use of this vehicle, we have kept the membership and others informed of some aspects of the development, educational, research, and service activities of the College and well continue to do so in the future.

PATRONIZE OUR ADVERTISERS

PHYSICIANS SEEKING LOCATION IN NEW JERSEY

The following physicians have written to the Executive Office of MSNJ seeking information on possible opportunities for practice in New Jersey. The information listed below has been supplied by the physician. If you are interested in any further information concerning these physicians, we suggest you make inquiries directly of them.

GENERAL PRACTICE—Paul V. Beals, M.D., Box 528, APO, New York 09009. Temple 1969. Partnership, group, solo. Available February 1974.

INTERNAL MEDICINE—T. N. Paul, M.D., 2900 South Lincoln Avenue, North Riverside, Illinois 60546. Calcutta 1954. Board eligible. Subspecialty, endocrinology. Group, solo, or hospital. Available.

Jae Young Lee, M.D., 3405-11S Wayne Avenue, Bronx, New York 10467. Pusan (Korea) 1968. Board eligible. Hospital, solo, or group, Available July 1973.

M.I.A. Malik, M.D., 226 Lincoln Avenue, Apt. 17, Newark 07104. King Edward (India) 1962. Board eligible. Subspecialty, pulmonary disease. Group, partnership, or associate. Available August 1973.

NEUROLOGY—Bruce D. Snyder, M.D., 106 W. Montgomery Avenue, Ardmore, Pennsylvania 19003. Johns Hopkins 1968. Board eligible. Group, academic, or solo.

OBSTETRICS-GYNECOLOGY—Thomas C. Tsai, M.D., 3990 Bronx Boulevard, Apt. 6D, Bronx, New York 10466. Taipei (Formosa) 1967. Board eligible. Group or partnership. Available July 1973.

Wu-Hsiung Yang, M.D., 40 East Sidney Avenue, Apt. 10L, Mount Vernon, New York 10550. Taipei (Formosa) 1966. Board eligible. Group or solo. Available July 1973.

Allan Zarkin, M.D., 566 First Avenue, New York 10016. Chicago 1963. Board eligible. Partnership. Available.

ORTHOPEDICS—Kraisorn Punjasthitkul, M.D., 30 Tuers Avenue, Jersey City 07306. Faculty of Medicine (Thailand) 1965. Solo or partnership. Available July 1973.

OTOLARYNGOLOGY—Stefan A. Jucincki, M.D., 20 Cedar Street, Taunton, Massachusetts 02780. Warsaw (Poland) 1959. Board certified. Group or association. Available June 1973.

PATHOLOGY—Saramma John, M.D., 83-83 118th Street, Apt. 3H, New York 11415. Trivandrum (India) 1964. Board certified. Hospital or group. Available July 1973.

PEDIATRICS—Chang T. Lin, M.D., 783 Remsen Avenue, Brooklyn, New York 11236. Kaohsiung (Taiwan) 1966. Board eligible. Group. Available.

Rohit K. Shah, M.D., 225 St. Paul's Avenue, Apt. 16E, Jersey City 07306. B. J. Medical College (India) 1965. Board eligible. Group or partnership. Available July 1973.

PSYCHIATRY—Bohdan Cehelyk, M.D., 1217 Medary Avenue, Philadelphia, Pennsylvania 19141. Hahnemann 1970. Group, partnership, or salaried position with opportunity for private practice. Available July 1974.

SURGERY—Edgar T. Victoria, M.D., 1420 Arch Street, Norristown, Pennsylvania 19401. Manila Central University 1966. Group, association, full time hospital. Available July 1973.

P. L. Puri, M.D., 1011 New Hope Street, Apt. 20A, Norristown, Pennsylvania 19401. New Delhi 1964. Board eligible. Group or Partnership, with or without general practice.

Lun-Hwa Yeh, M.D., 350 West 51st Street, Apt. 6G, New York 10019. Taipei (Formosa) 1966. Board eligible. Institution, group, partnership or solo. Available July 1973.

Communicable Diseases in New Jersey

The following communicable diseases were reported to the Division of Laboratories and Epidemiology during April 1973:

	1973 April	1972 April
Aseptic meningitis	23	4
Primary encephalitis	0	3
Hepatitis: Total	187	275
Infectious	155	221
Serum	32	54
Malaria: Total	0	2
Military	0	1
Civilian	0	1
Meningococcal meningitis	6	0
Mumps	472	104
German measles	924	289
Measles	60	61
Salmonella	60	62
Shigella	47	13

Food Poisoning and Typhoid Fever Associated with Visit to Acapulco

In midwinter, a group from four New Jersey counties traveled to Acapulco, Mexico. Nine members of the tour became ill with gastroenteritis and some were treated with antibiotics. Several members remained ill and returned home with symptoms.

Soon after returning home, one member was hospitalized with suspicion of typhoid fever. Almost simultaneously a tour member from another county was hospitalized with suspicion of typhoid. Stool cultures were undertak-

en on all members of the tour. *Shigella flexneri* was isolated from stools of three and *Salmonella seftenberg* was isolated from two others. Both hospitalized patients yielded *Salmonella typhi* in blood culture. The shigella and typhoid patients were treated with antibiotics.

The *Salmonella typhi* from these patients was not the "epidemic" strain from Mexico. However, about two weeks later, a New Jersey traveler in Mexico, who had been to Acapulco among other places, was found to be ill with typhoid and yielded the "epidemic" strain. This strain is resistant to chloramphenicol, and ampicillin is considered the treatment of choice in typhoid contracted in Mexico.

Sanitary conditions in Mexico are not always satisfactory, and care must be taken in eating food and in drinking water in *all* facilities.

Medical School's Clinical Role

The President of the College of Medicine and Dentistry of New Jersey has sent to the President of The Medical Society of New Jersey the following clarification of his remarks before the Society's Board of Trustees on February 18, 1973:

"On page 314 of the April 1973 issue of *The Journal* I have been quoted as stating that the new teaching hospital for the Rutgers Medical School is intended as a referral hospital to accommodate patients for the entire State. This quote is entirely accurate; however, immediately following that, it is stated that walk-in admissions and routine surgical procedures will not be provided. It is important to clarify this statement, since I would not wish the public to get the impression that our hospital would not accept emergency cases nor did I wish the State's physicians to feel that no routine surgery will be performed at that institution. While it is certainly our intent to develop this hospital as a tertiary care facility for the more sophisticated, costly, and rare surgical procedure, I could not assure you or any member of the Society that no routine surgery will take place. The perception in the minds of many citizens would lead to severe skepticism, if the impression were left that we would be oblivious to citizen emergency needs and/or strictly limit our surgical activities to the more complicated and esoteric procedure.

"It is not the intent of the College of Medicine and Dentistry of New Jersey to compete with existing community hospital facilities but rather to work cooperatively with them to provide the proper blend of services to all our citizens. We believe that the medical school can play a unique role in this endeavor by providing services that in many cases are now available to our citizens only through out-of-state resources. This approach is not only economically sound but educationally valid for it will give our students exposure to the community hospital facility but as part of their educational process.

"Thank you for your continued interest in our developmental endeavors."

(signed—Stanley S. Bergen, Jr. M.D.)

Pharmaceutical News Letter

This column is provided by the New Jersey Regional Pharmaceutic and Therapeutic Drug Information Center, through The Valley Hospital, Ridgewood, New Jersey, and Brookdale Inter-Regional Pharmaceutic and Therapeutic Drug Information Center at Brooklyn College of Pharmacy of Long Island University.

The Drug Information Center provides, at no charge to the inquirer, therapeutic and pharmaceutic information not readily available to medical practitioners.

The Drug Information Center is open Monday through Friday, 8:30 a.m. to 5 p.m., and can be reached by calling (201) 445-4900 Ext. 304 (Valley Hospital) or (212) 622-8989 (Brookdale Center) or writing to either Center.

Deaths Involving Propoxyphene. Sturner, W. Q., *et al.*
JAMA, 223:1125

A retrospective study is here offered of 41 deaths involving propoxyphene HCl (Dar-

von®) over a two-year period. It alerts the physicians to the potential deleterious effects of indiscriminate use and abuse of propoxyphene. Patients should be warned not to drink alcoholic beverages when taking the drug. Physicians should use extreme caution when prescribing to those in the younger age group.

Hypertonic Saline in Management of Intractable Pain. Hitchcock, E., *et. al.*
The Lancet, 1:310 (Feb 10) 1973

One hundred and eight patients with intractable pain from malignant disease or benign conditions were given intrathecal saline (10-15 per cent). Three months later over 50 per cent of cancer patients were still experiencing pain relief as judged by their need for mild analgesics only or none at all. Muscle weakness (3 per cent) and spincter disorders (8 per cent) were the most important complications.

Retinoic Acid in the Treatment of Psoriasis. MacDonald, A., *et al.*
Br J Derm, 86:524 (Nov 24) 1972

Retinoic acid ointment* plus betamethasone 17-valerate ointment (Valisone®) was objectively assessed as significantly superior to placebo plus betamethasone 17-valerate ointment in the treatment of 33 patients with psoriasis. The mode of action of retinoic acid in psoriasis is discussed.

The Value of Bisacodyl Tannex (Clysodrast) in the Radiological Examination of the Colon. Diner, W. C., *et al.*
Radiology, 104:49 (July) 1972

Approximately 130 patients were evaluated in a double-blind study to determine the effect of bisacodyl tannex (Clysodrast®) used in barium enema mixtures for examination of the colon. Those who received Clysodrast® showed a statistically significant improvement over the control group in the degree of emptying of the colon and the quality of postevacuation films. No significant side effects were experienced. The drug is recommended.

Single Oral-Dose Treatment of Gonorrhea with Cephalexin-Probenecid. Landes, R. R., *et al.*
Clinical Med, p. 23 (June) 1972

A single dose of 5 Gm of cephalexin (Keflex®) with probenecid 2 Gm (Benemid®) resulted in a 96 per cent cure rate in 50 women and 103 men infected with gonorrhea. Side effects were negligible, and no allergic reaction occurred in 13 patients who had a history of penicillin allergy.

Treatment of Trichomonal Vaginitis with a Single Oral Dose of Metronidazole. Woodcock, K. R.
Brit J Vener Dis, 48:65 (1972)

No significant difference in recurrence rate was found for 2 groups (203 patients) of women treated with metronidazole (Flagyl®) for vaginal trichomoniasis. One group received a 2 Gm single oral dose and the other group received 200 mg TID for 7 days. The single oral dose of 2 Gm was an acceptable treatment for vaginal trichomoniasis.

Bupivacaine HCl (Marcaine®-Winthrop)
This is a new local anesthetic. It is indicated for peripheral nerve block, infiltration, sympathetic block, caudal, or epidural block It is available in 3 concentrations, both without and with epinephrine 1 to 200,000.

Its major advantage over other local anesthetics is its prolonged duration of effectiveness. Anesthesia may last several hours, and is more prolonged with the addition of epinephrine.

Side effects are characteristic of those associated with other amidetype local anesthetics. Excessive plasma levels may lead to central nervous system effects such as excitation or depression. Cardiovascular and allergic manifestations are also possible.

Bupivacaine is *not* recommended for use in children under 12 years of age.

*Retinoic acid is available as a solution by Johnson & Johnson (Retin-A®) and McNeil Laboratories (Aberel®).

Remarks to Our Golden Merit Members*

It is my great privilege, as President of The Medical Society of New Jersey, to officiate at this, the seventeenth annual bestowal of the Golden Merit Award.

Established in 1957, the Golden Merit Award is an expression of The Medical Society of New Jersey's pride in, and affectionate regard for, those of its members who have completed half a hundred years as doctors of medicine. In bestowing this award The Medical Society of New Jersey honors itself by identifying with those distinguished men and women who have given a lifetime of devoted service to the people of New Jersey.

Today the award is being conferred upon fifty-five of our members—not all of whom are present—and the sum of their years of service reaches the magnificent total of 2,750 years!

It is doubtful if any generation of physicians has ever lived in, and been a vital part of, a time more crowded with advances and discoveries of outstanding importance to men and women everywhere. In every field of medical science and art the last fifty years have been years of miraculous accomplishments. Never before have the frontiers of scientific knowledge been so rapidly and richly expanded. Never before have the methods of care and treatment been so ingeniously and extensively increased. Never before has mankind enjoyed such prodigies of all-embracing skills and services. It has been the fortunate lot of men and women of medicine of the generation of those whom we honor today to be the bringers of help, the givers of hope, and the bestowers of improved health to their fellowmen.

We are all in their debt because they are unquestionably the benefactors of us all. They have doubly dowered us, by the fine service they rendered and by the splendid example of their lives.

We are aware that today medicine as a profession faces many challenges and difficulties. But when has it not? Through accepting and besting challenges, medicine has consistently progressed in overcoming disease and deferring death. What we of medicine need today is the vision to see what must be done and the courage to do it. For inspiration we have no farther to look than to those we honor here today. In their spirit we have been bred; to that spirit let us forever be true!

With full and grateful hearts we hail you today, beloved colleagues. In token of our homage and gratefulness we present to you the Golden Merit Award of The Medical Society of New Jersey as an accolade of merit for the long and distinguished services which you have rendered to your fellowmen. In acknowledging your sacrifice, we want also to give formal recognition to the sacrifices of your spouses and families who, because of your gifts of heart and mind, shared you so generously with the people to whom you ministered.

You have enriched the world by your life of service, and in the process you have enriched yourselves through the wealth of love and respect which you have deservedly amassed. May the remaining years of life be abundantly sweet to you, and may you enjoy that sweetness for many tranquil, happy years!

*Delivered by President William J. D'Elia, May 13, 1973, Atlantic City, to the 1973 recipients of MSNJ's Golden Merit Awards.

Sign the Death Certificate

New Jersey law requires you to sign a death certificate within 24 hours after you pronounce the patient dead. The undertaker cannot obtain the proper burial permission until this death certificate is signed. This is the last service you can render the patient, and you have an inescapable moral, as well as legal, responsibility here. Don't have the mortician trailing you all over the county pleading with you to sign.

OBITUARIES

Dr. Luciano E. DeMarco

Luciano DeMarco, M.D., died on March 26, 1973, at the age of 61. Most of his professional career was in Newark, but some years ago he had moved to Toms River. However, he maintained his membership in the Essex County Medical Society and was active on the staffs of both St. Michael's and St. James' Hospitals in Newark. He was also on the surgical staff at the Toms River Community Hospital. Dr. DeMarco was a 1939 graduate of the Medical School at St. Louis University. He was a Fellow of the American College of Surgeons.

Dr. Leo Fischer

Word has just come from Acapulco, Mexico, of the death there on February 27, 1973, of Leo Fischer, M.D. He was chief of orthopedic surgery at St. Francis Hospital and attending in orthopedics at the Medical Center in Jersey City, and a Fellow of the American College of Surgeons. He was a graduate (class of 1939) of the Medical School at the University of Cincinnati. Dr. Fischer was a Lieutenant Colonel in the Army of the United States during World War II, serving in the Pacific theater. He was 58 years old at the time of his death.

Dr. Charles Gandek

A viral pneumonia took the life of Charles Gandek, M.D., on April 29, 1973. A graduate of Creighton, class of 1945, he was only 56 years old at the time of his death. He was a member and Past-President of the Middlesex County Medical Society. He was a family doctor in Edison and was interested in sports and industrial medicine. Dr. Gandek was Medical Director for the New Jersey Turnpike Authority, Executive Medical Consultant for Revlon Corporation, and school physician for Edison Township. His wife was the 1972-1973 President of the Woman's Auxiliary to The Medical Society of New Jersey. He was on the staff of St. Peter's, Middlesex General, and Rehabilitation Hospitals in New Brunswick.

Dr. Anna L. Levy

At the age of 75, Anna L. Levy, M.D., a well known pediatrician, died on March 25, 1973. She had been graduated in 1922 at the Medical School of the University of Pennsylvania and was on the staff at Babies' Hospital in Newark. Dr. Levy was active in the organizational affairs of the American Medical Women's Association.

Dr. Jordan H. Nemet

On April 3, 1973, at the untimely age of 39, Jordan H. Nemet, M.D., died. He was a graduate of the Medical School at Zurich (class of 1966) and was an internist, an attending at both St. Barnabas Medical Center in Livingston and the Memorial Hospital in Orange. He was a member of our Essex County Medical Society.

Dr. Clymont MacArthur

Suddenly, on April 7, 1973, death came to Clymont MacArthur, M.D., a well-known Essex County surgeon. Born in 1894, he was 79 years old at the time of his death. Dr. MacArthur earned his M.D. degree at the Medical School of New York University in 1921. For many years, he was on the senior staff at Newark's Presbyterian Hospital. He was a member of our Essex County Medical Society.

Dr. John J. Quinn

John J. Quinn, M.D., a member of our Hudson County Medical Society, died on April 15, 1973. He was a retired general surgeon and a Fellow of the American College of Surgeons. Dr. Quinn had been attending in surgery at the Christ Hospital in Jersey City. He was a Bellevue graduate, class of 1926, and was 70 years old at the time of his death.

Dr. Leon J. Schwartz

Leon J. Schwartz, M.D., retired from active practice in October 1972. Word has just come that he had died on February 3, 1973 at the age of 66. His M.D. degree came from the

University of Arkansas in 1935. He was an eye, ear, nose, and throat consultant, who was a Fellow of the International College of Surgeons. Dr. Schwartz had been chief of otolaryngology at the South Bergen Hospital in Hasbrouck Heights and at St. Mary's Hospital in Passaic. He was a member of our Bergen County Medical Society.

Dr. William T. Snagg

The Director of Medical Education at The Cooper Hospital in Camden, William T. Snagg, M.D., died on April 23, 1973, at the age of 62. He was a 1937 graduate of Temple University Medical School and, during World War II, was a Lieutenant Commander in the U.S. Navy. He was a member of our Camden County Medical Society and Vice-Chairman of our State Society Committee on Medical Education. He was an internist who practiced in Camden for 23 years.

Dr. Charles A. Speer

A member of our Union County Medical Society, Charles A. Speer, M.D., died on April 17, 1973. Born in 1914, he was an alumnus of New York University, class of 1940. Dr. Speer was an obstetrician and gynecologist, who was senior attending in his specialty at the Muhlenberg Hospital in Plainfield. He was a member of the New Jersey Obstetrical and Gynecological Society and a Fellow of the American College of Obstetrics and Gynecology.

Dr. William A. Weiss

A board-certified anesthesiologist, William A. Weiss, M.D., died on March 22, 1973, at the age of 61. He was a 1938 Jefferson graduate who had practiced for some years in Philadelphia, where he had been anesthesiologist at the Pennsylvania Hospital, at Hahnemann Hospital, and at the Wills Eye Hospital. After moving to New Jersey a few years ago, Dr. Weiss became attending anesthesiologist at the Toms River Community Hospital. He was also on the staff of the Jersey Shore Medical Center in Neptune. He was a member of the Monmouth County Medical Society.

INFORMATION FOR READERS AND CONTRIBUTORS

The Journal, the official organ of The Medical Society of New Jersey, is published monthly under the direction of the Committee on Publication. *The Journal* is released the first week of the month, and a copy is sent to each member of the Society.

Change of Address: Notice of change of address should be sent promptly to The Medical Society of New Jersey, P.O. Box 904, Trenton, New Jersey, 08605.

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BOOK REVIEWS

Is My Baby All Right? Virginia Apgar, M.D. and Joan Beck. New York, Trident Press, 1973. Pp. 492. Illustrated ($9.95)

This well-written book is an attempt by the authors to present to the general public a comprehensive compendium of diseases that can afflict babies prenatally, at birth, and in the neo-natal period. Special emphasis is placed on genetics and resulting birth defects.

The authors start out with chapters on chromosomes and their make-up, proceed with conception and possible gene aberrations, then describe the developing fetus with inclusion of the teratologic effects of the environment and drugs on pregnancy. The bulk of the book follows with descriptions devoted to the multitude of conditions with which parents and doctor may be faced, especially in the newborn period. Some of the material is introduced by short case histories thereby revealing the emotional impact a congenital disease creates upon the family.

A book of this sort has limited appeal to physicians dealing with children, however, I found the statistics of probability enlightening and interesting. To recommend the text to prospective mothers generally would create undue anxieties about resulting pregnancies and their outcome. The excess medical terminology alone is an impediment to easy reading (e.g., terms such as erythroblastosis fetalis).

However the material in the book is well intended and would serve a useful purpose for use in paramedical areas. It would be most appropriate for geneticists, pediatric nurses, social workers, special educators, and the like.

With thirty-two chapters so well written in detail and interesting manner, one wonders if a serialization in Mrs. Beck's syndicated column would have served a more useful purpose. Or taken further and more appropriate, if the information from each chapter could be disseminated by Dr. Apgar as pamphlets through the March of Dimes with whom she affiliates at present.

Frank C. Vanore, M.D.

Review of Medical Pharmacology. Frederick H. Meyers, M.D., Ernest Jawetz, M.D., and Alan Goldfien, M.D. Los Altos, California, Lange, 1972. Pp. 688. Illustrated. ($8.50)

Medical practitioners are still being bombarded with drug claims, counterclaims, FDA drug withdrawals and reinstatements, to the point where the physician must hesitate in his treatments, review his knowledge of basic pharmacology or be lost in medicolegal litigations. Even clinicians with years of experience in prescribing are often at a loss to know what to accept and what to reject among the annual crop of claims for new drugs or drug modifications.

This text is prepared in a scholarly and concise manner to review and to teach the evaluation, technics of use, and application of drugs. Further breakdown of subject matter is by the specific system of the body: autonomic, cardiovascular, central nervous system, endocrine, metabolic, and chemotherapeutic applications. A chapter on toxicology covers management of overdosage. One impressive index lists drugs which have been named as "ineffective" by the FDA.

One needs the time and motivation to sit back, quietly study and review facts as presented without the comic illustrations and variations of psychedelic art we usually see in our weekly medical news magazines. These are presented by the drug manufacturers and their advertising agencies to persuade us to use their products.

As stated by the author, his book is a review and is not to be taken as encyclopedic.

Harry M. Poppick, M.D.

Not the Law's Business? Gilbert Geiss, Ph. D., Rockville, Maryland, National Institute of Mental Health, 1972. Pp. 262 (Softback—$1.50)

The concept of the crime without a victim has recently seized the public's imagination. This category includes abortion, homosexual behavior between consenting adults, narcotic taking, gambling, and prostitution. As implied by the title of the text, these are visualized as "not the law's business."

This volume is an in-depth inquiry into these offenses, why they have for so long been considered crimes, how effectively laws against them can be enforced (not very effectively, apparently) and what their future is likely to be. In this area are many points you would not normally think of and the volume is sure to raise many questions and even offer some clean-cut answers.

Abraham Leff, M.D.

Synopsis of Pathology. W. A. D. Anderson, M.D. and Thomas M. Scotti, M.D. St. Louis, Mosby, 1972. Pp. 1,076. Illustrations 430 ($13.95)

This is the eighth edition of a small but comprehensive textbook, first published 30 years ago. Of the 25 chapters, the first is concerned with "Cells and Their Behavior" and the last with "Nervous Systems." The first eleven chapters cover general concepts and principles of pathology. Each chapter thereafter deals with diseases of the various organ-systems. For a book entitled "Synopsis," the coverage is surprisingly complete and includes new knowledge which has been obtained by electron microscopy and immunofluorescent technics. The volume is profusely illustrated and the pictures are well chosen and nicely reproduced. The obvious use of high quality paper has made the latter possible.

This presentation is directed to "medical students, as well as resident physicians and clinicians, and to many others in medical and paramedical fields who need basic knowledge of disease processes." I especially recommend it to interns and residents who are preparing for state board or for specialty board examinations. I used the first edition of this when I was studying for state boards in 1943; it was current and timely then, and this newest edition is also current and so well written that reading it is a pleasure. I recommend the book to those mentioned above and to all physicians interested in reviewing new concepts in anatomic pathology.

Hugh F. Luddecke, M.D.

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The Journal would like to know the names of any members who wish to be considered as one of o group of ossociote editors to work in cooperation with the Editor-in-Chief. If interested, please communicote with Daniel B. Roth, M.D., Choirmon, Committee on Publication, MSNJ, P.O. Box 904, Trenton, New Jersey 08605.

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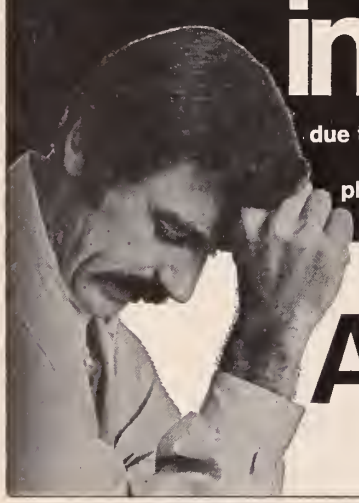
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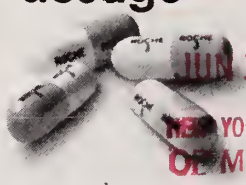
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